Pigeon Investment Management Limited
Bovis Homes Limited
Persimmon Homes Ltd
Laurence Homes (Eastern) Limited
Mid Suffolk District Council
Thurston Station Crossing

Thurston Station Crossing Report



Notice

This document and its contents have been prepared and intended solely for Pigeon Investment Management Limited, Bovis Homes Limited, Persimmon Homes Ltd, Laurence Homes (Eastern) Limited and Mid Suffolk District Council's information and use in relation to Thurston Station Crossing.

MLM Consulting Engineers Limited assumes no responsibility to any other party in respect of or arising out of or in connection with this document and/or its contents.

Document History

Client: Pigeon Investment Management Limited / Bovis Homes Limited /

Persimmon Homes Ltd / Laurence Homes (Eastern) Limited / Mid Suffolk District Council

Project: Thurston Station Crossing

Document Title: Report

Document Reference: 400348-MLM-ZZ-XX-RP-R-0001

MLM Reference: LCB/400348

Revision	Status	Description	Author	Checked/Approved	Date
-	Draft	Initial Issue	Lee Bowker	Paul Sokolowski	19/02/2018
01	Draft	Executive Summary added	Lee Bowker	Paul Sokolowski	23/02/2018
02	Final	Final Issue	Lee Bowker	Paul Sokolowski	09/03/2018

Contents

1	Executive Summary	1
2	Introduction	
3	Background	
4	Usage	
5	Network Rail Risk Scoring – All Level Crossing Risk Model (ALCRM)	8
6	Impact	10
7	Mitigation Measures	12
8	Conclusion	14

Appendix A - Proposed Development Locations

Appendix B - Network Rail Planning Consultation - response email, dated 03 May 2017.

Appendix C - Available Bus Services and Rail Time Table.

Appendix D - Thurston Station visual survey, 06.02.18 between 4.30 to 18.45.

Appendix E - Office for National Statistics 'Rural Home Working Statistics'

1 Executive Summary

On 1st November 2017, Mid Suffolk District Council resolved to grant planning permission, subject to conditions and the completion of a S106 agreement, for the following schemes in the village of Thurston:

- Pigeon Land north of Norton Road up to 200 homes
- Hopkins Land south of Norton Road up to 175 homes
- Laurence Land at Meadow Lane 64 homes
- Persimmon Land west of Ixworth Road up to 250 homes
- Bovis Land west of Barton Road 129 homes.

With the exception of the Hopkins Homes scheme (which was granted planning permission at appeal in October 2017) the above resolutions are to have a planning condition to safeguard risk management and mitigation for future station users.

Thurston Railway Station originally provided access to platform 1 via a subway. Following closure of the station building, access to platform 1 has been via a 'Station Platform Crossing' (SPC) protected by Miniature Stop Lights and spoken audible warnings.

It is understood that Network Rail intend to undertake feasibility work to inform a future bid to Mid Suffolk District Council to secure Community Infrastructure Levy (CIL) funding with the intention of carrying out improvement works to Thurston Railway Station that may improve the SPC.

A 9-day census was carried out at the level crossing by Sky High in April 2015 (Source: Network Rail LCDT Feasibility Report ref. 652468864, dated 25/08/15) and a visual survey was conducted by MLM on 06 February 2018. The survey results are set out in Appendix D.

Network Rail utilise an All Level Crossing Risk Model (ALCRM) to provide an estimate of both the individual and collective risks at a level crossing. The individual and collective risk is expressed numerically as a Fatalities and Weighted Injuries (FWI) score.

Thurston Station level crossing Fatalities and Weighted Injuries (FWI) score was reported in 2015 to be 0.001790697 (Source: Network Rail LCDT Feasibility Report ref. 652468864, dated 25/08/15) and the ALCRM ranking is reported to be D4, where D represents the risk to individual users (on a scale of A to M, where M is 'zero risk') and 4 represents the collective risk score (on a scale of 1 to 13, where 13 is 'zero risk').

The proposed developments, combined with another development known as the Granary scheme at Station Hill, Thurston, result in a potential population increase of up to 2,197. Based upon the Sky High census average of 130 usages per day, the increased population could potentially equate to an equivalent increase of up to 88 usages per day and a change in the ALCRM from D4 to D3.

Assuming the threshold between D4 to D3 occurs at 200 pedestrians per day, the change from D4 to D3 is marginal, with only 18 pedestrians over the D3 threshold. It assumes that all existing usage is from residents of Thurston and that existing users will increase as a result of the increased population in Thurston itself, which is unlikely to be the case. This estimate also assumes that working adults will continue to behave in a similar way over the course of the next 3 to 5 to 10 years and takes no account of changing working patterns and increased levels of home working. In addition, it assumes that there will be a proportionate increase in usage by children under 16, as a result of the proposed developments, however children under 16 are likely to attend Thurston Community College.

In any event, and assuming a continuation of existing travel behaviour, the potential increase in pedestrian usage (and hence change in ALCRM rating) is unlikely to take place until the latter stages of the proposed

developments / potential population increase. Assuming 12-18 months until the first dwellings are occupied and an average of 40-50 completions per annum for each of the proposed developments this is not anticipated to take place until summer 2022.

Based upon the likely change in usage as a result of future occupiers being less likely to require travel by rail to access secondary education, the potential for increased home working, the marginal nature by which the 200 pedestrians per day threshold is breached and the anticipated lead-in time for the completion of 725 homes, it is highly debatable whether mitigation is required.

In addition, Greater Anglia Franchise assumes passenger growth. It would therefore be reasonable to expect that both Greater Anglia and Network Rail have factored into their future plans for a degree of growth and therefore commensurate station improvements.

Notwithstanding the above and Network Rail's intention to undertake feasibility work to inform a future bid to Mid Suffolk District Council to secure CIL funding for improvement works to Thurston Railway Station, mitigation measures are proposed on a purely precautionary basis.

In order to safeguard risk management and mitigation for future occupiers of the proposed developments it is recommended that:

- Educational packs are provided to each dwelling explaining the operation of the existing level crossing
 and how it should be used to ensure pedestrian safety for future occupiers. It is recommended that this
 information is prepared as part of the Resident Travel Pack that will be provided to each household
 upon first occupation.
- A Travel Plan Coordinator be appointed who will be responsible for monitoring and reviewing the usage
 of Thurston Railway Station by future occupiers of the proposed developments on an annual basis.
- The Travel Plan Coordinator should be responsible for keeping future occupiers of the proposed developments up-to-date with any changes to the risk situation at Thurston Railway Station.
- In the event that the ALCRM score for collective risk changes from 4 to 3 then it is recommended that
 updated education packs are issued explaining the change in collective risk associated with use of the
 crossing and identifying alternative travel routes, provision of maps of pedestrian and cycle routes, car
 sharing information and alternative means of accessing rail travel.

The introduction of the proposed mitigation measures as scoped in this report are a proactive and proportionate approach to achieving a reduction in risk to future users of Thurston Station.

2 Introduction

Pigeon, Persimmon, Bovis, Hopkins & Laurence, are all proposing to undertake residential developments in the area of Thurston, Suffolk. The proposed developments comprise the following (see Appendix A for locations):

Developer	Address (estimated distance from station- straight line)	No. of Homes	Est. Pop.
Pigeon	Land north of Norton Road (800m)	Up to 200	Up to 480
Hopkins	Land south of Norton Road (725m)	Up to 175	Up to 420
Laurence	Land at Meadow Lane (600m)	64	154
Persimmon	Land west of Ixworth Road (875m)	Up to 250	Up to 600
Bovis	Land west of Barton Road (900m)	129	310
TOTAL		Up to 818	Up to 1,964

Table 1: Proposed developments location, number of homes and estimated population based upon average population per household in Thurston Parish (ONS 2011 Census).

In addition, outline planning permission has been granted for the erection of 97 one and two bedroom apartments as part of a mixed-use development at the Granary site, Station Hill. Once complete the Granary scheme is estimated to result in 233 people based upon the average population per household in Thurston (ONS 2011 Census). The estimated total population from the residential developments detailed in Table 1 above and the Granary site is up to 2,197.

It is understood that Network Rail intend to undertake feasibility work to inform a future bid to Mid Suffolk District Council to secure Community Infrastructure Levy (CIL) funding with the intention of carrying out improvement works to Thurston Railway Station that may improve the existing level crossing with an alternative means of accessing Platform 1.

At its meeting on 1st November 2017, Mid Suffolk District Council's Planning Referrals Committee resolved to grant planning permission for the five schemes detailed in Table 1 above. With the exception of the Hopkins Homes scheme (which was granted outline planning permission at appeal on 29th October 2017) the resolutions to grant planning permission are subject to, *inter alia*, the imposition of a planning condition to safeguard risk management and mitigation for future occupiers in relation to railway station safety.

This report has been jointly commissioned by Pigeon, Laurence, Persimmon, Bovis and Mid Suffolk District Council (the Parties) to consider the potential effect at Thurston Station of an increase in population numbers in relation to Network Rail's risk scoring mechanism, and determine possible mitigation measures that could be introduced in order to provide a scope for the subsequent discharge of the above mentioned planning condition.

This report is for the sole use of Pigeon, Persimmon, Bovis, Laurence and Mid Suffolk District Council.

3 Background

Thurston Station is located in Thurston, near Bury St. Edmunds, Suffolk, IP31 3NS.

The station building has been closed for some years. This is believed to have originally provided access to the up platform (platform 1) via a subway. When the station building was closed, access to the up platform was provided by the provision of the level crossing. The down platform (platform 2) is accessed directly from the station car park and has no level crossing requirement.

The level crossing is located at the Elmswell end of Thurston Station and managed by Greater Anglia. The level crossing provides access from the down side and acts as the only means of accessing the up platform (Platform 1).

The level crossing is currently a Station Platform Crossing (SPC) protected by Miniature Stop Lights (MSL) and spoken audible warnings. The level crossing is located on Engineers Line Reference (ELR) CCH, 32m 54ch and supervised by Colchester Signal Box. Thurston Station level crossing Fatalities and Weighted Injuries (FWI) score was reported in 2015 to be 0.001790697 (Source: Network Rail LCDT Feasibility Report ref. 652468864, dated 25/08/15.) and the All Level Crossing Risk Model (ALCRM) score is reported to be D4, also in 2015. Thurston level crossing risk score (D4) as calculated in 2015 is outside of ALCRM's high risk categories.



Fig 1: Thurston Station location map.



Fig 2: Thurston Station Map

Thurston Station has 12 car parking spaces and currently presents limited parking opportunity (assuming fence lines witnessed in February 2018 represent existing parking availability). The lack of station parking therefore has the potential to limit the use of Thurston Station.

Thurston village is a medium sized village east of Bury St Edmunds in the county of Suffolk. Around the station there is a mix of old and new residential properties and a number of medium sized businesses. The main usage over the level crossing today is pedestrian traffic; the level crossing provides the only access to platform 1 (up side). The crossing is also used by pupils from Thurston Community College who travel to Thurston from outside of the village to access secondary education.

Thurston has a reported population of 3,232 (Source: ONS 2011 Census). The demographic making up this population is 61.2% - Working Age Adults (16-64), 20.1% - People Aged 65+, 18.7% - Children under 16. (Source: ONS 2011 Census).

The town of Bury St. Edmunds is located 4 miles to the west of Thurston and has a larger railway station.

Train service is provided under the Greater Anglia Franchise. Monday to Saturday, hourly services in each direction throughout the day, generally at 30 minutes past the hour to Stowmarket and Ipswich, and 11 minutes to the hour to Bury St Edmunds and Cambridge, with variations in the evenings and early mornings. There are slightly fewer trains on Saturdays. On Sundays and Bank Holidays there is a two-hourly service, but there are alternate two-hourly services to Ipswich and Peterborough from Bury St Edmunds. Approximate journey times from Thurston: to Bury St Edmunds 6 minutes, Cambridge 42 minutes, Ipswich 33 minutes (see Appendix C for typical weekly train timetable).

The line is also subject to non-stop trains and relatively heavy freight use. Network rail have stated in their Planning Consultation (email dated 3 May 2017) that 124 trains run per day at up to 75mph for 24 hours per day (stopping and non-stopping trains). With weekday scheduled stops at the station totalling 38 No. (Taken from the scheduled timetable) this suggests 86 non-stop trains pass through the station at other times of the day.

Thurston is also served by the following bus companies, Suffolk Norse, Mulleys, Simonds, Galloway, and The Voluntary Network. Refer to Appendix C for details of available bus routes. The bus services offer a good level of local transport alternatives to other modes of transport.

4 Usage

A 9-day census was carried out at the level crossing by Sky High in April 2015 (Source: Network Rail LCDT Feasibility Report ref. 652468864, dated 25/08/15.). The total pedestrian count over the 9-day period was 1,170 with these predominantly being adults (an average of 130 pedestrians per day). A small proportion of the users were accompanied and unaccompanied children, elderly people or people pushing a pram. The busiest day was recorded as being Day 7 (Friday) of the census with a total user count of 205. For pedestrians, the busiest quarter hourly period occurred at 17:45 on Day 8 (Saturday) with 39 pedestrians.

A large community college (Thurston Community College) is situated 0.5 miles north of the station crossing, and a primary school (Thurston Church of England Primary Academy) is 0.7 miles away. A morning and evening peak was observed which may be due to pupils travelling to these schools or to commuters travelling to nearby towns and cities.

A visual survey was conducted by MLM on 06 February 2018, between the hours of 14.30 and 18.45. The survey was visual only and can only account for usage on this one particular day between the hours noted. The results are as set out in Appendix D. The survey carried out by MLM counted 53 users using the level crossing which is in line with the 9 day census quantum. The MLM survey was carried out on a Tuesday.

In Network Rail's consultation response dated 03 May 2017, responding to the planning applications for the proposed developments detailed in Table 1, they state the current usage is 75 users per day. Note that this refers to pedestrians and not usage, which is not in keeping with the terminology used in the 9 day census by Sky High. Therefore for the purposes of this report, the higher usage figure from the 9 day census by Sky High has been used, representing a more robust approach.

It should be noted that Thurston Community College has a number of extended days a week (Tuesdays, Wednesdays and Thursdays) for some pupils. These extension periods, at the end of the day, are called 'Enrichment Activities' and extend the pupils' day from 15.10/15.20 to 16.45/16.55 on those days. It is understood that 'Late buses' are provided for these students involved. The MLM survey witnessed College age users arriving at the station by bus from the Community College. Approximately 40% of the pedestrians using the station were recorded as Teen or Children during the MLM survey, of which 22 (47% were observed getting on a train at Thurston (rather than getting off) and therefore most likely to be returning home from the Community College. It should be noted, however, that the majority of future residents from the proposed developments in Thurston are less likely to require rail travel to access secondary education given the existence of the Community College, which is in walking distance of the proposed developments. It is therefore reasonable to assume that there will not be a proportionate increase in Teens or Children using the station, as a result of the proposed developments in Thurston.

In addition, anecdotal evidence suggest that working patterns are changing and the increase in 'working from home' is on the rise, which would result in a reduction of commuter travel occurrences. The office for National Statistics 'Rural home working statistics', see Appendix E, suggest that rural town and fringe locations are expecting a rise in home working. This could potentially lead to a reduction in usage by the working age population, however, this has not been taken into account for the purposes of this assessment, which assumes a continuation of existing travel behaviour for the working age population.

At the time of the survey, the car park was effectively full, and little parking opportunity is available. The majority of users were witnessed as having walked. Occasional pick up / drop off was witnessed by car and the Community College bus.

5 Network Rail Risk Scoring – All Level Crossing Risk Model (ALCRM)

The All Level Crossing Risk Model (ALCRM) provides an estimate of both the individual and collective risks at a level crossing.

The individual and collective risk is expressed in Fatalities and Weighted Injuries (FWI). The following values help to explain this:

- 1 = 1 fatality per year or 10 major injuries or 200 minor RIDDOR events or 1000 minor non-RIDDOR events
- 0.1 = 20 minor RIDDOR events or 100 minor non-RIDDOR events
- 0.005 = 5 minor non-RIDDOR events

INDIVIDUAL RISK

This is the annualised probability of fatality to a 'regular user'. NOTE: A regular user is taken as a person making a daily return trip over the crossing; assumed 500 traverses per year.

Individual risk:

- Applies only to crossing users. It is <u>not</u> used for train staff and passengers
- Does not increase with the number of users.
- Is presented as a simplified ranking:
 - Allocates individual risk into rankings A to M (A is highest, L is lowest, and M is 'zero risk' e.g. temporary closed, dormant or crossings on mothballed lines)
- Allows comparison of individual risk to average users across any crossings in the network.

Individual Risk	Upper Value	Lower Value	Upper Value	Lower Value
Ranking	(Probability)	(Probability)	(FWI)	(FWI)
Α	1 in 1	Greater than 1 in 1,000	1	0.001000000
В	1 in 1,000	1 in 5,000	0.001000000	0.000200000
С	1 in 5,000	1 in 25,000	0.000200000	0.000040000
D	1 in 25,000	1 in 125,000	0.000040000	0.000008000
Е	1 in 125,000	1 in 250,000	0.000008000	0.000004000
F	1 in 250,000	1 in 500,000	0.000004000	0.000002000
G	1 in 5000,000	1 in 1,000,000	0.000002000	0.00001000
Н	1 in 1,000,000	1 in 2,000,000	0.000001000	0.00000500
I	1 in 2,000,000	1 in 4,000,000	0.00000500	0.000000250
J	1 in 4,000,000	1 in 10,000,000	0.000000250	0.00000100
K	1 in 10,000,000	1 in 20,000,000	0.00000100	0.00000050
L	Less than 1 in	Greater than 0	0.00000050	Greater than 0
	20,000,000			
M	0	0	0	0

Table 2: ALCRM Individual risk ranking (NB: Risk does not increase with number of users)

COLLECTIVE RISK

This is the total risk for the crossing and includes the risk to users (pedestrian and vehicle), train staff and passengers.

Collective risk:

• Is presented as a simplified ranking:

Allocates collective risk into rankings 1 to 13 (1 is highest, 12 is lowest, and 13 is 'zero risk' e.g. temporary closed, dormant or crossings on mothballed lines)

Can easily compare collective risk between any two crossings on the network

Collective Risk	Upper Value (FWI)	Lower Value (FWI)
Ranking		
1	Theoretically infinite	Greater than 5.00E-02
2	0.050000000	0.010000000
3	0.010000000	0.005000000
4	0.005000000	0.001000000
5	0.001000000	0.000500000
6	0.000500000	0.000100000
7	0.000100000	0.000050000
8	0.000050000	0.000010000
9	0.000010000	0.000005000
10	0.000005000	0.000001000
11	0.000001000	0.00000500
12	0.000005	0
13	0.00E+00	0.00E+00

Table 3: ALCRM Collective Risk. (NB: Risk will increase with increase in user numbers)

COMBINED SCORING

Within Network Rail's consultation email response, they set out the following modelled ALCRM:

75 Pedestrians per day:	D4 with a FWI of 0.001924552
120 Pedestrians per day:	D4 with a FWI of 0.003079283
150 Pedestrians per day:	D4 with a FWI of 0.003849104
200 Pedestrians per day:	D3 with a FWI of 0.005132138

Table 4: Modelled ALCRM for Thurston Station level crossing (Network Rail Consultation Response, 03 May 2017)

The Network Rail Consultation Response shows that based upon the census carried out by Sky High (130 pedestrians per day) the current ALCRM risk score is D4. This is anticipated to remain at D4 up to 200 pedestrian movements per day. At 200 and above pedestrian movements per day the risk score changes to D3. It should be noted, however, that the change only relates to the collective risk score. The individual risk score, which will not increase with increased numbers of users remains unchanged at D.

6 Impact

The proposed developments, combined with the Granary scheme, result in a potential population increase of up to 2,197. The type of houses vary between developments and therefore the demographic is likely to be variable, but still estimated to be within the demographic make-up set out in section 3 i.e. majority working age adults.

Car parking spaces at the station equate to 12 in number and this could deter some additional users who may not wish to walk to the station, particularly in winter months. During the recent survey snap-shot, the principal mode of transport to the station was walking. The location of the proposed developments are within walking distance, i.e. circa ½ mile. Given the likely demographic, walking to the station will be a viable option.

The current population of 3,232 (ONS 2011 Census), equates to an average of 130 usages per day based upon the Sky High census of 1,170 pedestrians over 9 days (NB. a user will only use the crossing once in any given outbound and return journey). A population increase of up to 2,197 could potentially equate to a 9-day usage increase of 795 overall, equating to an increase of up to 88 usages per day (total of up to 218 usages). This, of course, assumes that the proposed population would rely upon the train network in the same way as the current demographic, including children under 16, which as discussed in section 4 of this report is unlikely to be the case given the existence of the Community College in Thurston.

In addition, the above estimated total usage figure assumes that all existing usage is from residents of Thurston and that existing users (i.e. those travelling to Thurston by alternative modes from outside of the village) will increase as a result of increased population in Thurston itself, which is unlikely to be the case. This estimate also assumes that users (working adults) will continue to behave in a similar way over the course of the next 3 to 5 to 10 years. Anecdotal evidence suggest that working patterns are changing and the increase in 'working from home' is on the rise, which would result in a reduction of commuter travel occurrences. The office for National Statistics 'Rural home working statistics', see Appendix E, suggest that rural town and fringe locations are expecting a rise in home working.

In light of the above, the potential increased usage of the level crossing (i.e. an additional 88 usages per day) represents a very robust assessment of potential future use and it is within this context that the potential future usage should be considered.

Based upon the potential increased usage of up to 88 usages per day (218 usages in total), which assumes a continuation of existing behaviour and therefore represents a robust approach for the reasons set out above, the ALCRM score (see table 4 above) will potentially change from D4 to D3 (NB. the change relates to the collective risk only with no change to the risk score for individual users). However, based upon the potential increased usage, this change is marginal, with only 18 pedestrians over the D3 threshold that is anticipated to occur once usage increases to 200 usages per day. When considered in the context of potential changes in travel behaviour of the working age population, and the fact that there is unlikely to be a proportionate increase in Teens or Children using the Station, it is debatable whether this level of increased usage will occur.

In any event, and assuming a continuation of existing travel behaviour, the potential increase in pedestrian usage is unlikely to take place until the latter stages of the proposed developments/potential population increase. Based upon the 9 day census of 1,170 pedestrians (130 usages per day), and the average household occupancy rate for Thurston (as per the 2011 Census), the change from D4 to D3 would not be anticipated to occur until the Thurston population reaches approximately 4,972 or until 725 additional homes have been occupied. Assuming 12-18 months until the first dwellings are occupied and an average of 40-50 completions per annum for each of the proposed developments this is not anticipated to take place until summer 2022.

Based upon the likely change in usage as a result of future occupiers being less likely to require travel by rail to access secondary education, the potential for increased home working, the marginal nature by which the 200 pedestrians per day threshold is breached and the anticipated lead-in time for the completion of 725 homes, it is highly debatable whether mitigation is required.

In addition, Greater Anglia modelling for Franchise relies upon passenger growth. It would therefore be reasonable to expect that both Greater Anglia and Network Rail have factored into their future plans a degree of growth and therefore accept that the risk model is set to change.

In light of the above and Network Rail's intention to undertake feasibility work to inform a future bid to Mid Suffolk District Council to secure CIL funding for improvement works to Thurston Railway Station, any mitigation measures should be considered on a purely precautionary basis. It is therefore recommended that mitigation measures as scoped in this report are considered that will help to manage the use of the level crossing by future residents.

7 Mitigation Measures

In order to safeguard risk management and mitigation for future occupiers of the proposed developments it is recommended that a suite of measures is introduced that are aimed at highlighting the potential risks associated with the use of the existing level crossing at Thurston Railway Station. The scope of measures that are recommended to achieve this are as follows:

The preparation of educational packs to be provided to each dwelling explaining the operation of the existing level crossing and how it should be used to ensure pedestrian safety for future occupiers. It is recommended that this information is prepared as part of the Resident Travel Pack that will be provided to each household upon first occupation.

The appointment of a Travel Plan Coordinator who will be responsible for monitoring and reviewing the usage of Thurston Railway Station by future occupiers of the proposed developments. As part of the monitoring and review process the Travel Plan Coordinator should also keep future occupiers of the proposed developments up-to-date with any changes to the risk situation at Thurston Railway Station (not anticipated to take place until summer 2022). As per the educational packs, it is recommended that the monitoring is undertaken as part of the Travel Plan Monitoring that will be carried out for the proposed developments (i.e. annual monitoring for a period of five years or until one year after occupation of the final dwelling, whichever is sooner).

The Travel Plan Coordinator should be a person or body with the appropriate skills, budgetary provision and resources to produce and, if appropriate, update the educational packs to be provided to each household. It is recommended that consideration is given to the appointment of a single Travel Plan Coordinator who will be responsible for reviewing and monitoring use of the Station by future occupiers of the proposed developments.

As part of the annual monitoring and review process the Travel Plan Coordinator should assess and update future occupiers in respect of any changes to the risk category for the level crossing. In the event that the ALCRM score for the crossing in respect of collective risk (NB. the risk to individual users will not change as a result of potential increased use of the crossing by future occupiers) changes from 4 to 3 then it is recommended that updated education packs are issued explaining the change in collective risk associated with the use of the existing level crossing and identifying alternative travel routes, such as current information for bus travel (see Appendix C), provision of maps of pedestrian and cycle routes, car sharing information and alternative means of accessing rail travel (e.g. potentially via Bury St Edmunds Station).

In order to secure the scope of measures outlined above, the Parties have agreed that this could be achieved by the imposition of the following draft planning condition.

Prior to the commencement of development above slab level a Railway Users Plan shall be submitted to, and approved in writing by, the Local Planning Authority as part of the development's Travel Plan in order to manage potential risks associated with the use of the existing level crossing at Thurston Railway Station by future occupiers of the development hereby permitted.

The Railway Users Plan shall comprise measures, as identified in paragraphs (a), (b) and (c) below, together with a timetable for their implementation, aimed at managing use for future occupiers by means of:

(a) educational packs to be provided to each dwelling upon first occupation (as part of the Resident Travel Pack) explaining the operation of the existing level crossing and how it should be used, to ensure pedestrian safety for future occupiers; and

- (b) the appointment of a Travel Plan Coordinator to monitor and review, on an annual basis, usage of Thurston Railway station by future occupiers of the development hereby permitted; and
- (c) as part of the annual monitoring and review process the Travel Plan Coordinator will keep future occupiers of the development up-to-date with any changes to the risk situation at Thurston Railway Station for a period of five years from the first occupation of the 100th¹ dwelling or until one year after occupation of the final dwelling, whichever is the sooner.

The measures outlined in the Railway Users Plan shall be undertaken in accordance with the approved details and timetable for implementation.

Reason - To manage risk of using the existing level crossing at Thurston Railway Station for future occupiers of the development hereby permitted.

¹ The trigger will need to be considered and agreed for each development given differences in quantum.

8 Conclusion

Network Rail has advised that it is their strategy to close level crossings wherever possible as this removes any interface where a person or vehicle crosses the tracks. Therefore the concern for Network Rail in relation to the development proposals relates solely to the level crossing at Thurston Station.

Network Rail's ALCRM scoring considers Individual risk (rated A-M) and collective risk (rated 1-13). Network Rail confirmed in their correspondence that they currently score the crossing D4 (D for Individual risk and 4 for Collective risk).

The developments do not affect the Individual rating, D, but could potentially affect the Collective risk rating. Based on Network Rail's 9-day census survey usage (extrapolated for the potential increase in population), this could result in up to 218 users (pedestrians) per day, and therefore the crossing classification would potentially change from D4 to D3 towards the latter stages of the proposed developments/potential population increase (anticipated to potentially take place when the population of Thurston reaches approximately 4,972 or 725 additional homes have been occupied).

The scoping undertaken in this report has adopted a precautionary approach in respect of increased usage of the level crossing, assuming a direct continuation of usage based upon current travel patterns and level of usage for the proposed developments. The potential increase of up to 218 users per day therefore represents a robust assessment of potential future usage, assuming that the current level of usage by children under 16 will increase as a result of the proposed developments (unlikely to be the case given the existence of the Community College) and does not take into account potential changes in travel behaviour as a result of home working, for example.

On the basis of the assessment, which finds that the potential increase above 200 pedestrians per day (the threshold at which the ALCRM collective risk score is anticipated to change) is marginal, and the fact that any change is unlikely to occur until summer 2022, it is debatable whether any mitigation is required. In light of this and Network Rail's intention to undertake feasibility work to inform a future bid to Mid Suffolk District Council to secure CIL funding for improvement works to Thurston Railway Station, together with its duty of care for existing and future users of Thurston Station, mitigation measures have been recommended that will help to manage the use of the level crossing by future residents, on a precautionary basis.

The mitigation measures that are scoped in this report to manage use of the level crossing by future occupiers are intended to sit alongside the travel planning measures that will be required for each of the proposed developments. It is proposed that the scope of measures comprise the preparation of education packs, the appointment of a Travel Plan Coordinator and annual monitoring to keep future occupiers updated in respect of any changes to ALCRM score.

The introduction of proposed mitigation measures scoped in this report, set out in section 7 will aide to reduce risk and is a proactive approach to achieving this legitimate aim, and hence addresses the proposed Planning Condition, which forms part of the 1st November 2017 Planning Referrals Committee Resolution.

Appendix A - Proposed Development Locations

Pigeon

016-032-001 (B) Illustrative Masterplan PARC.PDF

Hopkins

5010_16-development_framework_plan-1704047.pdf

Laurence

15.033 101 Site Layout REVC - coloured with landscaping.pdf

Persimmon

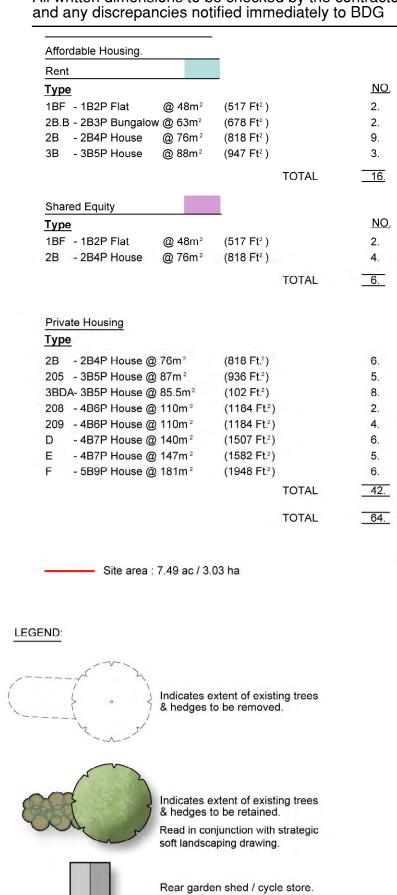
THUR-03D Sketch block plan.pdf

Bovis

TSM_Colour Planning Layout-8.pdf



No dimensions are to be scaled from this drawing All written dimensions to be checked by the contractor and any discrepancies notified immediately to BDG



■ REVISIONS

S.W. Sewer (assumed alignment)

F.W. Sewer (assumed alignment)

- A. 19.10.16 Visitor parking added to open space perimeter.
 Footpath link to Meadow Lane indicated.
 B. 20.10.16 Sheds added to relevant gardens. Car port shown between plots 57 & 58.
 C. 11.04.17 Footpath link increased in width to form Cycleway;
 Plots 34-56, 57-59 & 63-64 drives & fences repositioned; Plots 3-6 repositioned with new private drive; new road crossings added.

■ DRAWING STATUS PLANNING





BDG DESIGN (SOUTH) Ltd 💳 Southway House
29 Southway, Colchester
Essex C02 7BA
Tel: 01206 561436
Fax: 01206 574821
E-Mail: cad@bdg-design.co.uk

■ PROJECT
Meadow Lane, **Thurston**

■ DRAWING TITLE

Site Layout

■ SCALE	■ DATE	■ DRAWN	■ CHECKED
1:500@A1	Sept. 16	ks	
■ NUMBER			■ REV.

15.033/101



Key Do not scale from this drawing to ascertain dimensions. Site Boundary Copyright for all designs and drawings shall remain with Hopkins Homes in accordance with the Copyright Act. New Landscaped Belt 20 0 20 40 60 80 100 Ecological And Surface Water Attenuation Area Within Informal Parkland Setting Scale 1:2500 Vehicle Access Into Site From Sandpit Lane Proposed Footpath and Gym/Trim Trail Indicative Main Street Indicative Secondary Street Potential Footpath Links Existing Public Footpath Proposed Public Open Space Allotments Informal Kickabout Area Proposed Churchyard Extension Proposed 3m Footpath/Cycle way widened to 3.7m as necessary for emergency access. Replacement Hedge Planting Rear Of Visibility Splay Existing Residential Development Suffolk Potential Location Of Foul Water Pump Station Existing Hedges To Be Retained Where Possible Storey Heights 1 - 1.5 Storey Development: 6.0-7.5m ridge height Thurston, 2 Storey Development: 7.5-8.5m ridge height Possible Locations for 2.5-3 Storey Development: 8.5-12.0m ridge height

Development Framework Plan





This drawing is the copyright of RUA ©. All rights reserved. Ordnance Survey Data © Crown Copyright. All rights reserved. DO NOT scale from this drawing. Contractors, Sub Contractors and Suppliers are to check all relevant dimensions and levels of the site and building before commencing

any shop drawings or building work. Any discrepancies should be

AUTHOR CHK'D T3 protection zone added, plots 1-3, 25.08.17 7-8 & 9-10 adjusted to suit.

Overall design changed to achieve 17.08.17 IR low scale village feel. density reduced by 9 dwellings to 129 units, 3 storey apartment removed and replaced with two store dwellings. 19 additional Bungalows provided along the adjoining boundary, schedule of accommodation adjusted to suit change.

Plots 1 - 4 adjusted to minimise impact 12.06.17 IR to T3 & plot 1 garage removed.

Left turn visibility out of the principal 25.05.17 IR access road revised to 2.4m x 120m

Principal site access visibility added & 03.05.17 IR hedgerow removed to allow for sufficient visibility.

Affordable housing mix incorporated 07.02.17 IR & layout adjusted to suit. 20.12.16 IR Plot cycle stor added

PLANNING



4 Spencer Parade Northampton, NN1 5AA t: 01604 212147 f: 01604212147 www.r-u-a.co.uk

Land West Of Barton Road

Thurston, Suffolk

Planning Layout (07)

AUTHOR CHK'D 1:500 @ A0 25.08.17 DRAWING NO. THURSTON THU-P-001



Appendix B - Network Rail Planning Consultation response email, dated 03 May 2017.

From: Khan Wasil [mailto:Wasil.Khan@networkrail.co.uk] On Behalf Of Town Planning SE

Sent: 03 May 2017 11:56 **To:** Planning Admin **Cc:** Town Planning SE

Subject: Consultation on Planning Application 5070/16 - Land at Norton Road, Thurston / (anglia)

Dear Sir/Madam,

Thank you very much for consulting with Network Rail in regards to application 5070/16 and offering us the opportunity to comment.

We have reviewed the application above and assessed the further combined developments which include the below planning applications.

- 2797/16 / Highfield, Norton Road, Thurston, Bury St Edmunds, IP31 3QH 175 dwellings
- 4963/16 / Land west of Ixworth Road, Thurston IP31 3PB 250 dwellings
- 4942/16 / Land at Meadow Lane, Thurston IP31 3QG 64 dwellings
- 4386/16 / Land on the west side of Barton Road, Thurston IP31 3NT 138 dwellings
- 5070/16 Land at Norton Road, Thurston 200 dwellings

We note the five submitted developments have a total residential occupancy of approximately 827 units.

It should be noted that Network Rail's strategy is to close level crossings wherever possible as this removes any interface where a person or vehicle could be struck by a train. Therefore the major concern for Network Rail in relation to these proposals, is the Barrow level Crossing at Thurston Station. Historically we have seen a number of issues at this crossing and cannot accept additional impact and further usage unless mitigation and measures are introduced; therefore the preferred option in this location would be to close the level crossing.



The safety justification for closure of the crossing is set out below:

Thurston station level crossing is a footpath crossing with miniature warning lights located at the end of the platforms at Thurston. The crossing traverses two lines and is 8.9m in length, equating to a user requirement of 11.35 seconds to traverse the crossing, with a required sighting distance of 381m, of which there is currently insufficient sighting but this is mitigated by the miniature warning lights.

Trains run frequently over the crossing with approximately 124 trains running at up to 75mph for 24 hours per day with stopping and non-stopping trains.

Particular factors have to be considered for the safety of those using the crossing. Network Rail has a standard Risk Assessment tool called ALCRM (All Level Crossing Risk Model), which determines the predictive level of risk at a level crossing based on a variety of factors, including misuse, train information, number of users, the environment, available sighting etc. Based on the information entered, ALCRM calculates the risk score which generates an individual risk to a user (A to M) and a collective risk (1 to 13) with A and 1 being the highest calculated risk.

Within these risk bands, ALCRM also calculates a Fatality & Weighted Injuries (FWI) score. When the last ALCRM assessment was undertaken in July 2015, Thurston level crossing's risk score was calculated as 0.001924552 (D4), which is outside of ALCRM's high risk categories.

The proposed residential development will see the usage at this crossing increase to a greater level and therefore mitigation options to decrease the risk will need to be explored in order for Network Rail to support the planning application.

Without definitive numbers, the increase in pedestrian footfall has been modelled in ALCRM as follows:

• 75 Pedestrians per day: D4 with a FWI of 0.001924552 (Last census)

120 Pedestrians per day
150 Pedestrians per day
200 Pedestrians per day
D4 with a FWI of 0.003079283
D4 with a FWI of 0.003849104
D3 with a FWI of 0.005132138

As you can see the FWI rises, with 200 pedestrians a day this would move the crossing into a High risk category. Currently a new risk assessment is being carried out and from a safety perspective if the development were to be approved then the level crossing will see a significant increase in pedestrian usage (currently 75 users per day). In all of the aforementioned pedestrian scenarios, there would be a marked increase in the risk profile at this level crossing which would therefore be unacceptable.

Given the increase in risk and increased usage at the station, we believe the development will have a severe effect on safety unless mitigation measures are introduced and contributions are provided in order to fund the closure of the crossing. The measures required to close the crossing are outlined in the attached feasibility report. In light of the 5 applications coming forward, we believe the only fair and reasonable solution would be for the applicants to share the cost of the crossing closure. The cost of the closure is estimated to be £1million, which equates to £1209.19 per dwelling.

Having assessed the likely safety implications which would be likely to occur as a result of increased pedestrian traffic on the level crossing in this location, Network Rail recommend that no objection be raised subject to the applicants entering into a legal agreement which provides £1209.19 multiplied by the amount of dwellings which are permitted, to enable the closure of the level crossing.

Reason: To ensure safe and suitable access can be provided in accordance with Paragraph 32 of the NPPF.

Kind Regards,

Wasil Khan Town Planning Technician, Property

Network Rail 5th Floor 1 Eversholt Street London NW1 2DN Tel: 07734 648485

E: Wasil.khan@networkrail.co.uk www.networkrail.co.uk/property



From: planningadmin@midsuffolk.gov.uk [mailto:planningadmin@midsuffolk.gov.uk]

Sent: 06 April 2017 15:10 To: Town Planning SE

Subject: Consultation on Planning Application 5070/16 - Land at Norton Road, Thurston / response

deadline 20/04/2017 / (anglia)

Correspondence from MSDC Planning Services.

Location: Land at Norton Road, Thurston

Proposal: Outline Planning Permission sought for the erection of up to 200 homes (including 9 self build plots), primary school site together with associated access, infrastructure, landscaping and amenity space (all matters reserved except for access)

We have received an application on which we would like you to comment. A consultation letter is attached. To view details of the planning application online please click <u>here</u>

We request your comments regarding this application and these should reach us

within 14 days. Please make these online when viewing the application.

The planning policies that appear to be relevant to this case are GP1, NPPF, SC4, Cor4, RT12, CL8, C01/03, which can

be found in detail in the Mid Suffolk Local Plan.

We look forward to receiving your comments.

Emails sent to and from this organisation will be monitored in accordance with the law to ensure compliance with policies and to minimize any security risks. The information contained in this email or any of its attachments may be privileged or confidential and is intended for the exclusive use of the addressee. Any unauthorised use may be unlawful. If you receive this email by mistake, please advise the sender immediately by using the reply facility in your email software. Opinions, conclusions and other information in this email that do not relate to the official business of Mid Suffolk District Council shall be understood as neither given nor endorsed by Mid Suffolk District Council.

The content of this email (and any attachment) is confidential. It may also be legally privileged or otherwise protected from disclosure.

This email should not be used by anyone who is not an original intended recipient, nor may it be copied or disclosed to anyone who is not an original intended recipient.

If you have received this email by mistake please notify us by emailing the sender, and then delete the email and any copies from your system.

Liability cannot be accepted for statements made which are clearly the sender's own and not made on behalf of Network Rail.

Network Rail Infrastructure Limited registered in England and Wales No. 2904587, registered office Network Rail, 2nd Floor, One Eversholt Street, London, NW1 2DN

Appendix C - Available Bus Services, Rail Time Table.

	Mon	day to	Friday (Except	Bank	Holiday	/s)											Saturday							
Comin			385	384	384	_	385	384	385	204	385	384	385	384	384	384	384	385	384	205	384	385	384	385	384
Service Operato		385 GEC	GEC	GEC	GEC	384 GEC	GEC	GEC	GEC	384 GEC	GEC	GEC	385 GEC	GEC	GEC			GEC							
Service Restrictions		NSch	Sch	Sch	NSch	GLO	GLO	GLO	GLO	GLO	GLO	GLO	NSch	NSch	Sch	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	GLO	alo
Notes																1									
Mendlesham, Kings Head (opp)	_	_	_	0710	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Mendlesham Green, Bus Shelter (o/s)	_	_	_	0714	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Stowupland, Mill Cottages (opp)	_	_	-	0724	_	_	-	-	_	_	-	_	_	_	-	_	_	_	_	_	-	_	_	-	_
Stowupland, Dents Corner (S-bound)	_	_	_	0726	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Cedars Park, Redwing Drive (adj)	_	_	_	0728	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Stowmarket, Gun Cotton Way Park (adj)	_	_	_	0730	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Combs Ford, Cracknells (o/s)	_	_	_	0735	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_
Combs Ford, Church Road (adj)	_	_	_	0737	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_
Combs Ford, Chandlers Walk (NE-bound)	_	_	_	0740	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Stowupland, High School (inside)	_	_	_		_	_	_	_	_	_	_	_	_	_	1550	_	_	_	_	_	_	_	_	_	_
Stowmarket, Gun Cotton Way Park (opp)	_	_	_		_	_	_	_	_	_	_	_	_	_	1555	_	_	_	_	_	_	_	_	_	_
Stowmarket, Railway Station (adj)	_	_	_		_	_	_	1050	_	_	_	1450	_	_		_	_	_	_	_	1050	_	1320	_	_
Stowmarket, Argos Store (o/s)	0625	0710	0710	0745	0745	0855	0955	1055	1130	1255	1355	1455	_	1605	1605	1710	1755	0715	0855	0955	1055	1155	1325	1440	1605
Stowmarket, Violet Hill Road (adj)	0627			0747	0747	0857		1057		1257		1457	_	1607	1607	1712	1757		0857		1057		1327		1607
Stowmarket, Narey's Garden Centre (SE)	0630					0900		1100		1300		1500	_	1610	1610	1715	1800		0900		1100		1330		1610
Stowmarket, Railway Station (opp)		0712	0712				0957		1132		1357		_					0717		0957		1157		1442	
Old Newton, Shoulder of Mutton (opp)		0719	0719				1004		1139		1404		_					0724		1004		1204		1449	
Haughley, Mill Fields (opp)		0723	0723				1008		1143		1408		_					0728		1008		1208		1453	
Haughley, Station Road (opp)	0634	0724	0724			0904	1009	1104	1144	1304	1409	1504	_	1614	1614	1719	1804	0729	0904	1009	1104	1209	1334	1454	1614
Haughley, Post Office (adj)	0635	0725				0905	1010	1105	1145	1305	1410	1505	_	1615	1615	1720	1805	0730	0905	1010	1105	1210	1335	1455	1615
Haughley New Street, The Close (adj)	0639	0729	0729			0909	1014	1109	1149	1309	1414	1509	_	1619	1619	1724	1809	0734	0909	1014	1109	1214	1339	1459	1619
Wetherden, Maypole (adj)	0641	0731	0731			0911	1016	1111	1151	1311	1416	1511	_	1621	1621	1726	1811	0736	0911	1016	1111	1216	1341	1501	1621
Elmswell, Shop Corner (opp)	0645	0735	0735			0915	1020	1115	1155	1315	1420	1515	_	1625	1625	1730	1815	0740	0915	1020	1115	1220			1625
Woolpit, Post Office (opp)	0650			0800	0800	0920		1120	1200	1320	1425	1520	_	1630	1630	1735	_		0920	1025			1350		1630
Woolpit, Business Park (o/s)	0651		0741	0801	0801	0921	1026		1201	1321	1426	1521	_	1631		1736		0746		1026		1226		1511	1631
Tostock, Gardeners Arms (opp)	0655			0805				1125		1325		1525	_	1635		1740	_		0925		1125		1355		1635
Beyton, The Green (opp)	0659			0809	0809	0929		1129		1329		1529	_	1639	1639	1744	_		0929		1129		1359		1639
Norton, Baptist Church (adj)			0744				1029		1204		1429		_				_	0749		1029		1229		1514	
Thurston, Shops (o/s)		0750					1035		1210		1435		1535				_	0755		1035		1235		1520	
Thurston, The Green (adj)		0751				0934	1036		1211		1436		1536	1645	1645	1750	_	0756				1236		1521	1645
Thurston, Community College Main Entrance (opp)		0753	0753			0936	1038		1213		1438		1538			1754	_	0759		1038		(1238)		1523	(1649)
Thurston, Genesta Drive (o/s os64)	0708					0938		1138		1338				1651	1651	1756	_		0938		1138		1408		1651
Thurston, Post Office (opp)	0711					0941	1041	1141		1341	1441		1541	1654	1654	1759	_	0801	0941	(1111)	(1141)		(1411)		(1654)
Moreton Hall, Tassel Road (adj)	0717					0947		1147	1222	1347	1447		1547	1700	1700	1805	_	0804	0947				1417		1700
Moreton Hall, Sainsbury's (adj)	0720		0805			0950					1450		1550		1703	1808	_	0810	0950			1250			1703
Bury St Edmunds, West Suffolk Hospital (adj)	0726					0956					1455				1708	1813	_		0956			1255			1708
Bury St Edmunds, Arc Shopping Centre (o/s)	0731	0005	0005	0005	0005	1001	1101	1201	1236	1401	1501	45.0	1000	1713	1713	1818	_	2022	1001		1201		1431		1714
Bury St Edmunds, Bus Station (Stand 7)	0735	0825			0830	1005	1105	1205	1240	1405	1505	1540	1600	1715	1715	1820	_	0830	1005	1105	1205	1305	1435	1550	1715
Bury St Edmunds, West Suffolk College (opp)	_	_	0835	0840	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Bury St Edmunds, St Benedicts Catholic School (o/s)			0845	0850																					

NOTES
NSch Not School Days

Sch School Days Only

1 Sponsored by Suffolk County Council

GEC Galloway 01449 766323 Suffolk 09/10/2017

Sunday no service

	Saturday
Servi	ce 384
Operat	tor GEC
Stowmarket, Railway Station (adj)	1730
Stowmarket, Argos Store (o/s)	1735
Stowmarket, Violet Hill Road (adj)	1737
Stowmarket, Narey's Garden Centre (SE)	1740
Haughley, Station Road (opp)	1744
Haughley, Post Office (adj)	1745
Haughley New Street, The Close (adj)	1749
Wetherden, Maypole (adj)	1751
Elmswell, Shop Corner (opp)	1755
Woolpit, Post Office (opp)	s1800
Woolpit, Business Park (o/s)	s1801

NOTES s sets down only

OPERATORS
GEC Galloway 01449 766323 Suffolk 09/10/2017

no service

	Monday to Friday (Except Bank Holidays)											Satur	day												
Service	e 384	384	384	384	385	385	384	385	384	385	384	384	384	385	384	385	384	384	385	384	385	384	385	384	384
Operato	r GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC	GEC
Service Restrictions	S Sch	NSch	Sch									Sch	NSch												
Note:	S															1									
Bury St Edmunds, St Benedicts Catholic School (o/s)	_	_	_	_	_	_	_	_	_	_	_	1553	_	_	_	_	_	_	_	_	_	_	_	_	_
Bury St Edmunds, West Suffolk College (adj)	_	_	_	_	_	_	_	_	_	_	_	1600	_	_	_	_	_	_	_	_	_	_	_	_	_
Bury St Edmunds, Bus Station (Stand 7)	0745	0745	0810	0855	_	1010	1125	1225	1250	1425	1515	1610	1610	1640	1740	1825	_	0855	1025	1125	1225	1345	1455	1610	1740
Bury St Edmunds, Arc Shopping Centre (opp)				0857	_	1012	1127	1227	1252	1427					1742	1827	_	0857	1027	1127	1227	1347	1457	1612	1742
Bury St Edmunds, West Suffolk Hospital (opp)				0900	_	1015	1130	1230	1255	1430					1745	1830	_	0900	1030	1130	1230	1350	1500	1615	1745
Moreton Hall, Sainsbury's (opp)			0815	0905	_	1020	1135	1235	1300	1435	1520			1650	1750	1835	_	0905	1035	1135	1235	1355	1505	1620	1750
Moreton Hall, Tassel Road (opp)			0818	0908	_	1023	1138	1238	1303	1438	1523			1653	1753	1838	_	0908	1038	1138	1238	1358	1508	1623	1753
Thurston, Post Office (o/s)			0824	0914	_	1029	1144	1244	1309	1444	1529			1659	1759	1844	_	0914	1044	1144	1244	1404	1514	1629	1759
Thurston, Genesta Drive (o/s os64)				0916	-		1146		1311		1531				1801		_	0916		1146		1406		1631	1801
Thurston, Community College Main Entrance (o/s)			0827	0918	_	1031	1148	1246	1313	1446	1533			1701	1803	1846	_	0918	1046	1148	1246	1408	1516	1633	1803
Thurston, The Green (opp)			0829	0920	_	1033	1150	1248	1315	1448				1703	1805	1848	_	0920	1048	1150	1248	1410	1518	1635	1805
Beyton, Manor House (adj)			0835	0925	_		1155		1320			1620	1620		1810		_	0925		1155		1415		1640	1810
Tostock, Gardeners Arms (adj)			_	0929	_		1159		1324			1624	1624		1814		_	0929		1159		1419		1644	1814
Thurston, Shops (opp)			_		_	1034		1249		1449				1704		1849	_		1049		1249		1519		
Thurston, Rectory Gardens (o/s)			_		_						1534						_								
Norton, The Dog (adj)			_		0930	1040		1255		1455				1710		1855	_		1055		1255		1525		
Woolpit, Business Park (opp)	0803	0803	_	0933	0933	1043	1203	1258	1328	1458		1628	1628	1713	1818	1858	0803	0933	1058	1203	1258	1423	1528	1648	1818
Woolpit, Post Office (adj)	0804	0804	_	0934	0934	1044	1204	1259	1329	1459		1629	1629	1714	1819	1859	0804	0934	1059	1204	1259	1424	1529	1649	1819
Elmswell, Shop Corner (adj)	0809	0809	_		0939	1049	1209	1304	1334	1504		1634	1634	1719	1824	1904	0809	0939	1104	1209	1304	1428	1534	1654	1824
Wetherden, Maypole (opp)	0813	0813	_		0943	1053	1213	1308	1338	1508		1638	1638	1723	1828	1908	0813	0943	1108	1213	1308	1430	1538	1658	1828
Haughley New Street, The Close (opp)	0815	0815	_		0945	1055	1215	1310	1340	1510		1640	1640	1725	1830	1910	0815	0945	1110	1215	1310	1434	1540	1700	1830
Haughley, Post Office (opp)	0819	0819	_		0949	1059	1219	1314	1344	1514		1644	1644	1729	1834	1914	0819	0949	1114	1219	1314	1439	1544	1704	1834
Haughley, Station Road (adj)	0820	0820	_		0950	1100	1220	1315	1345	1515		1645	1645	1730	1835	1915	0820	0950	1115	1220	1315	1440	1545	1705	1835
Stowmarket, Narey's Garden Centre (SE)	0824	0824	_	0944			1224		1349			1649	1649		1839		0824	0954		1224		1444		1709	1839
Stowmarket, Violet Hill Road (opp)	0827	0827	_	0947			1227		1352			1652	1652		1842		0827	0957		1227		1447		1712	1842
Haughley, Mill Fields (adj)			_		0951	1101		1316		1516				1731		1916			1116		1316		1546		
Old Newton, Shoulder of Mutton (adj)			_		0955	1105		1320		1520				1735		1920			1120		1320		1550		
Stowmarket, The Little Wellington (adj)			_		1000	1110		1325		1525				1740		-			1125		1325		1555		
Stowmarket, Station Road West (adj)	0830	0830	_	0950	1005	1115	1230	1330	1355	1530		1700	1700	1745	1845	-	0830	1000	1130	1230	1330	1450	1600	1715	1845
Stowmarket, Railway Station (adj)		-	_	0955	_	-	-	-	-	-		_	-	_	-	-	-	1005	_	1235	_	1455	-	1720	_
Thurston, Shops (o/s)		-	_	-	_	-	-	-	-	-	1535	_	-	_	-	-	_	-	-	-	-	-	-	- 1	_
Cedars Park, Tesco (adj)	0840	-	_	-	_	_	-	-	_	_	-	_	-	_	-	-	_	-	_	-	_	-	-	_	_
Stowupland, High School (inside)	0845	_	_	-	_	_	_	_	_	_	_	_	_	_	_	_	_	_	-	_	-	-	-	_	-
	Sunc	lay																							

NOTES NSch Not School Days Sch School Days Only

1 Sponsored by Suffolk County Council

OPERATORS
GEC Galloway 01449 766323 Suffolk 09/10/2017

Table T014-F

Mondays to Fridays

II December to 18 May

Ipswich - Bury St. Edmunds, Cambridge, Ely and Peterborough

Miles Miles	s Miles					LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE
							1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	-	Colchester			d		05 40								 									
_ _	-						05 49																	
	0	Harwich Internation	onal		d						07 50				 									
0 0	18				d	05 10	06 00	06 16	06 54	08 03	08 20	09 20	10 00	10 20	11 20	11 58	12 20	13 20	13 58	14 20	15 20	16 00	16 20	17 20
81/4 —	_	Needham Market			d	05 20		06 25	07 03		08 29	09 29		10 29	 11 29		12 29	13 29		14 29	15 29		16 29	 17 29
12 12	_	Stowmarket .			d	05 26	06 12	06 31	07 09	08 16	08 35	09 35	10 12	10 35	11 35							16 12	16 35	 17 35
173/4 —	l –	Elmswell			d	05 35		06 39	07 17		08 44	09 43		10 43				13 43					16 43	17 43
221/4 —	_	Thurston .			d	05 41		06 45			08 50			10 49	11 49			13 49		14 49			16 49	17 49
261/2 261/2	_	Bury St Edmunds			а	05 48	06 28	06 51	07 29	08 31			10 28	10 55	 11 55	12 27	12 55	13 55	14 27	14 55	15 55	16 29	16 55	17 55
	+-	Bury St Edmunds								08 32												16 29		17 57
36 —	l _	Kennett				06 00									12 07			14 07			16 07		17 07	18 07
41 —	_	Newmarket				06 09		07 14			09 16			11 16	 12 17			14 17		15 16			17 17	18 17
441/4 —	_	Dullingham												11 21			13 21			15 21				
55% —	_	Cambridge				06 33		07 39			09 39	10 39		11 39	12 39			14 39		15 39			17 39	 18 39
- 51	-	Ely 6														12 58			14 58			16 58		
_ -	_									08 58			10 58		 	12 58			14 58			16 58		
- 60%		Manea			a	l	07 07		l	09 09			11 09			13 09						17 09		
- 661/2		March			a		07 14			09 16			11 16		 	13 16			15 16			17 16		 12.50
- 741/4		Whittlesea						š					11 28									17 28		
- 81%		Peterborough E					07 37			09 39			11 39		 	13 39			15 39			17 39		
- 1777		1						1							 		<u> </u>	<u> </u>		<u> </u>	<u> </u>		·	
						_																		
				LE	LE	LE	LE	LE	LE											1 22				
				LE	LE 1	LE	LE	LE	LE															
						0	1		LE															
Colches	ster	d	0	1		0									 									
Manning	gtree	d .	0	1	1	0	1								 									
Manning	gtree	d d	1	1	1	1	1								 									
Manning Harwich Ipswich	gtree Interr	d d national d d	7 49 1	8 17	19 13	20 00	20 18	3 21 17	22 19															
Manning Harwich Ipswich	gtree Interr	d d d d d d d d d d d d d d d d d d d	7 49 I 7 58 I	8 17 8 26	19 13 19 22	20 00	20 18	3 21 17 3 21 27	22 19	· · · · · · · · · · · · · · · · · · ·														
Manning Harwich Ipswich Needham	gtree Interr Marke	d d d d d d d d d d d d d d d d d d d	7 49 I 7 58 I	8 17 8 26	19 13 19 22	20 00	20 18	3 21 17	22 19	· · · · · · · · · · · · · · · · · · ·				1.0		-			-					
Manning Harwich Ipswich Needham Stowmarke	gtree Interr Marke	d d d d d d d d d d d d d d d d d d d	7 49 1 7 58 1 8 04 1 8 12 1	8 17 8 26 8 32 8 40	19 13 19 22 19 28 19 36	20 00	20 18 20 28 20 39 20 44	3 21 17 3 21 27 5 21 33 4 21 42	22 15 22 25 22 35 22 44					1.0	 	-								 ······
Manning Harwich Ipswich Needham Stowmarke	gtree Interr Marke		7 49 1 7 58 1 8 04 1 8 12 1 8 18 1	8 17 8 26 8 32 8 40 8 46	19 13 19 22 19 28 19 36 19 42	20 00	20 18 20 28 20 39 20 44 20 50	3 21 17 3 21 27 5 21 33 4 21 42	22 19 22 29 22 39 22 44 22 50						 									
Manning Harwich Ipswich Needham Stowmarke Elmswell. Thurston Bury St E	gtree Interr Marke et	d ational d l ational d l d l d l d l d l d l d l d l d l d	7 49 1 7 58 1 8 04 1 8 12 1 8 18 1 8 24 1	8 17 8 26 8 32 8 40 8 46 8 52	19 13 19 22 19 28 19 36 19 42 19 48	20 00 20 12	20 18 20 28 20 39 20 44 20 50 20 50	3 21 17 3 21 27 5 21 33 4 21 42 0 21 48	22 15 22 25 22 35 22 44 3 22 50						 									
Manning Harwich Ipswich Needham Stowmarke Elmswell. Thurston Bury St E	gtree Interr Marke et	d ational d l ational d l d l d l d l d l d l d l d l d l d	7 49 1 7 58 1 8 04 1 8 12 1 8 18 1 8 24 1	8 17 8 26 8 32 8 40 8 46 8 52	19 13 19 22 19 28 19 36 19 42 19 48	20 00 20 12	20 18 20 28 20 39 20 44 20 50 20 50	3 21 17 3 21 27 5 21 33 4 21 42	22 15 22 25 22 35 22 44 3 22 50															
Manning Harwich Ipswich Needham Stowmarke Elmswell. Thurston Bury St E Bury St E	Marke et Edmun	d d d d d d d d d d d d d d d d d d d	7 49 7 58 8 04 8 12 8 18 8 24 8 30	8 17 8 26 8 32 8 40 8 46 8 52 8 57	19 13 19 22 19 28 19 36 19 42 19 48 19 57 20 07	20 00 20 12 20 28 20 29	20 18 20 28 20 39 20 44 20 50 20 50	3 21 17 3 21 27 5 21 33 4 21 42 0 21 48	22 15 22 25 22 35 22 44 22 56 22 57						 									
Manning Harwich Ipswich Needham Stowmarke Elmswell. Thurston Bury St E Bury St E Kennett.	gtree Intern Marke et Edmun	d d d d d d d d d d d d d d d d d d d	7 49 7 58 8 04 8 12 8 18 8 24 8 30	8 17 8 26 8 32 8 40 8 46 8 52 8 57	19 13 19 22 19 28 19 36 19 42 19 48 19 57 20 07	20 00 20 12 20 28 20 29	20 18 20 28 20 39 20 44 20 56 20 56	3 21 17 3 21 27 5 21 33 4 21 42 0 21 48 5 21 55	22 19 22 29 22 39 22 44 22 50 22 57															
Manning Harwich Ipswich Needham Stowmarke Elmswell Thurston Bury St E Bury St E Kennett . Newmarke	Marke et	d d d d d d d d d d d d d d d d d d d	7 49 7 58 8 04 8 12 8 18 18 24 18 30	8 17 8 26 8 32 8 40 8 46 8 52 8 57	19 13 19 22 19 28 19 36 19 42 19 48 19 57 20 07	20 00 20 12 20 28 20 29	20 18 20 28 20 39 20 44 20 50 20 50 20 50	3 21 17 5 21 33 4 21 42 0 21 48 5 21 55 7 21 56	22 19 22 29 22 39 22 44 22 50 22 57															
Manning Harwich Ipswich Needham Stowmarke Elmswell. Thurston Bury St E Kennett Newmarke Dullingham	Marke et	d d d d d d d d d d d d d d d d d d d	7 49 7 58 8 04 8 12 8 18 8 24 8 30	8 17 8 26 8 32 8 40 8 46 8 52 8 57	19 13 19 22 19 28 19 36 19 42 19 48 19 57 20 07 20 17	20 00 20 12 20 28 20 29	20 18 20 28 20 39 20 44 20 56 20 56 20 56	3 2 1 17 3 2 1 27 5 2 1 33 4 2 1 42 0 2 1 48 5 2 1 55 7 2 1 56 2 2 07	22 15 22 25 22 35 22 44 22 56 22 57	4														
Manning Harwich Ipswich Needham Sedham Imswell. Thurston Bury St E Bury St E Kennett. Newmarke Dullingham Cambridg	gtree Intern Markeet Edmun Edmun et	d d d d d d d d d d d d d d d d d d d	7 49 7 58 8 04 8 12 8 18 8 24 8 30	8 17 8 26 8 32 8 40 8 46 8 52 8 57 9 16 9 21 9 39	19 13 19 22 19 28 19 36 19 42 19 48 19 57 20 07 20 17	20 00 20 12 20 28 20 29	20 18 20 28 20 38 20 44 20 56 20 56 20 57 21 16 21 2	3 2 1 17 3 2 1 27 5 2 1 33 4 2 1 42 0 2 1 48 5 2 1 55 7 2 1 56 2 2 07 5 2 2 17	22 19 22 29 22 39 22 44 22 50 22 57	4														
Manning Harwich Ipswich Needham Stowmarke Elmswell. Thurston Bury St E Bury St E Kennett Newmarke Dullingham Cambridg	gtree Intern Marke et . Edmun Edmun et .	d d d d d d d d d d d d d d d d d d d	7 49 7 58 8 04 8 12 8 18 18 18 18 18	8 17 8 26 8 32 8 40 8 46 8 52 8 57 9 16 19 21 19 39	19 13 19 22 19 28 19 36 19 42 19 48 19 57 20 07 20 17	20 00 20 12 20 28 20 29	20 18 20 28 20 38 20 44 20 56 20 56 20 57 21 16 21 2 21 46	3 2 1 17 3 2 1 27 5 2 1 33 4 2 1 42 0 2 1 48 5 2 1 55 7 2 1 56 2 2 07 5 2 2 17 1 2 2 23	22 19 22 29 22 39 22 44 22 50 22 57	4														
Manning Harwich Ipswich Needham Stowmarke Elmswell. Thurston Bury St E Bury St E Kennett Newmarke Dullingham Cambridg	gtree Intern Marke et . Edmun Edmun et .	d d d d d d d d d d d d d d d d d d d	7 49 7 58 8 04 8 12 8 18 8 30	8 17 8 26 8 32 8 40 8 46 8 52 8 57 9 16 9 21 9 39	19 13 19 22 19 28 19 36 19 42 19 48 19 57 20 07 20 17	20 00 20 12 20 28 20 29 20 59 20 59	20 18 20 28 20 38 20 4 20 56 20 56 21 10 21 2 21 40	3 21 17 3 21 27 5 21 33 4 21 42 0 21 48 5 21 55 7 21 56 22 07 5 22 17 6 22 23 0 22 40	22 15 22 25 22 35 22 44 22 56 22 57															
Manning Harwich Ipswich Needham Stowmarke Elmswell. Thurston Bury St E Bury St E Kennett. Newmarke Dullingham Cambridg Ely E	gtree Intern Marke et Edmun Edmun et n	d d d d d d d d d d d d d d d d d d d	7 49 1 7 58 1 8 04 1 8 12 1 8 18 1 8 24 1 8 30 1	8 17 8 26 8 32 8 40 8 46 8 52 8 57 9 16 9 21 9 39	19 13 19 22 19 28 19 36 19 42 19 48 19 57 20 07 20 17	20 00 20 12 20 28 20 29 20 59 20 59	20 18 20 28 20 38 20 4 20 55 20 55 21 10 21 21 22 21 40	3 21 17 3 21 27 5 21 33 4 21 42 0 21 48 5 21 55 7 21 56 22 07 5 22 17 1 22 23 0 22 40	22 15 22 25 22 35 22 44 22 56 22 57															
Manning Harwich Ipswich Needham Stowmarke Elmswell Thurston Bury St E Kennett Newmarke Dullingham Cambridg Ely E	gtree Internation Marke et Edmun Edmun et ge	d d d d d d d d d d d d d d d d d d d	7 49 7 58 8 04 8 12 1 8 30	8 17 8 26 8 32 8 40 8 46 8 52 8 57 9 16 9 21 9 39	19 13 19 22 19 28 19 36 19 42 19 48 19 57 20 07 20 17	20 00 20 12 20 28 20 29 20 59 21 09 21 17	20 18 20 28 20 39 20 44 20 50 20 52 20 52 21 10 21 22 21 44	3 2 1 17 3 2 1 27 5 2 1 33 4 2 1 42 0 2 1 48 5 2 1 55 7 2 1 56 2 2 07 5 2 2 17 1 2 2 23 0 2 2 40	22 15 22 25 22 35 22 44 22 50 22 57															
Manning Harwich Needham Stowmarke Elmswell Thurston Bury St E Kennett Newmarke Dullingham Cambridg Ely E Manea March Whittlesea	gtree International Marke et Edmun Edmun et ge	d d d d d d d d d d d d d d d d d d d	7 49 7 58 8 04 8 12 1 8 30	8 17 8 26 8 32 8 40 8 46 8 52 8 57 9 16 9 39	19 13 19 22 19 28 19 36 19 42 19 48 19 57 20 07 20 17	20 00 20 12 20 28 20 29 20 59 21 09 21 17	20 18 20 28 20 39 20 44 20 50 20 52 20 52 21 14	3 21 17 5 21 33 4 21 42 0 21 48 5 21 55 7 21 56 22 07 5 22 17	22 19 22 29 22 39 22 44 22 55															

Saturdays

16 December to 19 May

											 									-				IVIG
		LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE	LE		LE	LE	LE	LE
			1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		1	1	1	1
Colchester	d		05 40								 													
Manningtree	d		05 49						- :					-										
Harwich International	d						07 50				 													
lpswich							08 20				11 20	11 58	12 20	13 20	13 58		15 20		16 20		17 20			19 20
Needham Market		05 20			07 29		08 29			10 29	11 29			13 29			15 29		16 29		17 29			19 29
Stowmarket							08 35				11 35						15 35		16 35					19 35
Elmswell		05 35			07 43		08 44			10 43	11 43			13 43			15 43		16 43		17 43			19 43
Thurston		05 41			07 49		08 50			10 49	11 49		12 49			14 49			16 49		17 49		18 49	
Bury St Edmunds							08 56				11 55													19 55
Bury St Edmunds							08 57		10 29	10 57			12 57			14 57			16 57				18 57	19 57
Kennett		06 00			08 07			10 07			 12 07			14 07			16 07		17 07		18 07			20 07
Newmarket		06 09			08 17		09 16			11 16	12 17			14 17			16 17	1.0	17 17		18 17			20 17
Dullingham		06 14			08 22		09 21			11 21	12 30		13 21			15 21			17.30		10.30		19 21	
Cambridge	а	06 32	06 56		08 39	08 58	09 39	10 39		11 39	12 39			14 39	14 58		16 39		17 39		18 39			20 39
Ely 🖟	a		06 56			08 58			10 58 10 58		 	12 58 12 58			14 58			16 58 16 58				18 58 18 58		
Manea	u		07 07			09 09			11 09			13 09			15 09			17 09				19 09		
March	a		07 14		1	09 16			11 16		 	13 16			15 16			17 16				19 16		
Whittlesea	a		07 26			09 28			11 28			13 28			15 28			17 28				19 28		
Peterborough 8	a		07 37		1	09 39			11 39		 	13 39			15 39			17 39				19 39		

For complete service between Ely and Peterborough refer to Table T017

Table T014-F

Saturdays

16 December to 19 May

Ipswich - Bury St. Edmunds, Cambridge, Ely and Peterborough

		LE 1	LE	LE	LE 1												
Colchester	4																
Manningtree	d		 			 	 			 	 		 	 		 	
Harwich International	d																
Ipswich	d	19 58	 20.20	21 17	22 10	 	 			 	 		 	 		 	
Needham Market	d	17 30		21 27		-				- 1							
Stowmarket	d ,	20 11		21 33													
Elmswell	a			21 42			 			 	 		 	 		 	
Thurston	d			21 48						190		-					
Bury St Edmunds		20 27		21 55		 	 			 	 		 	 		 	
Bury St Edmunds	d	20 29	20 57	21 56							-						
Kennett	d		 	22 07		 	 			 	 		 	 		 	
Newmarket	d			22 17			-										
Dullingham	d			22 23		 	 			 	 		 	 		 	
Cambridge	a		21 39	22 40			-	0.5	100								
Ely 6		20 58				 	 			 	 		 	 		 	
		20 58							-		-						
Manea		21 09				 	 			 	 		 	 		 	
March	a	21 16													- 2		
Whittlesea		21 28				 	 			 	 		 	 		 	
Peterborough 🛭 .	a 2	21 39												ı,			

Sundays

10 December to 13 May

		LE	LE	L		LE 1	LE 1	LE	LE											
Colchester	Н		2	. 09	32															
Manningtree	d			09								 				 	 	 	 	
Harwich International	d		. 08 3														 	 	 	
lpswich	d	07 3	2 09 0		55	11 02	11 55	13 02	13 55	15 02	15 55	 17 02	17 55	19 0	2 21 02	 	 		 	
Needham Market			2 09 1			11 12		13 12		15 12		17 12			2 21 12		 	 	 	
Stowmarket	-				07	11 18	12 07		14 07						3 21 18		 	 	 	
Elmswell			7 09 2			11 27		13 27		15 27		 17 27			7 21 27		 	 	 	
Thurston			3 09 3			11 33		13 33		15 33		 17 33			3 21 33		 	 	 	
Bury St Edmunds					23	11 40	12 23		14 23			 17 40	18 23		21 40		 	 	 	
Bury St Edmunds											16 24	17 41	18 24	19 4	21 41					
Kennett	d	08 2	2 09 5	2		11 52		13 52		15 52		 17 52			2 21 52		 	 	 	
Newmarket			1 10 0			12 01		14 01		16 01		18 01		20 0	1 22 01					
Dullingham			6 10 0			12 06		14 06		16 06		 18 06			22 06		 	 	 	
Cambridge			7 10 2			12 25		14 25		16 25		18 25		20 2	1 22 24					
Ely 6	а			. 10			12 51		14 51		16 51	 	18 51			 	 	 	 	
•	d			10	52		12 52		14 52		16 52		18 52							
Manea	а											 				 	 	 	 	
March	a			11	80		13 08		15 08		17 08		19 08							
Whittlesea	а			. 11	20		13 20		15 20		17 20	 	19 20			 	 	 	 	
Peterborough 🖪	a			11	31		13 31		15 31		17 31		19 31							

For complete service between Ely and Peterborough refer to Table T017

Table T014-R

Mondays to Fridays

II December to 18 May

Peterborough, Ely, Cambridge and Bury St. Edmunds - Ipswich

Du	ıy	OL.	Edillullus	- ipsv	VIC																				
Miles	Miles	Miles			LE 1	LE	LE	LE 1	LE	LE 1	LE 1	LE 1		LE 1	LE 1	LE	LE	LE 1	LE 1	LE 1	LE	LE 1		LE 1	LE 1
																							- 1		
0	_		Peterborough 8						07 50			09 50				11 50						15 50			
7	_	-	Whittlesea						07 58			09 58		2.0		11 58			13 58			15 58			
143/4	_		March						08 09			10 09				12 09			14 09			16 09			
201/2	-		Manea						08 17			10 17				12 17			14 17			16 17			
301/4	-	-	Ely 🖟	a					08 31 08 32			10 31				12 31			14 31			16 31 16 32			
	- 0	=	Cambridge	a	-:				08 32					10.44	11.44						15.44	16 32		17.44	17 44
_	11%	=	Dullingham	a				08 00		U8 44	10 00			10 44	12 00			14 00			16 00				18 00
_	141/2	=	Newmarket	u						00.04				11 04											18 05
_	191/2	=	Kennett				07 10			09 12				11 12			13 12			15 12					18 13
54¾	291/4	=	Bury St Edmunds	u					00 50	09 12	10.22	10 50		11 22	12 22	12 50	13 12	14.22	14 50	15 12	14 22	14 50			18 24
34/4		=	Bury St Edmunds	d	OF 21	04 21	07 23	00 23	08 58	07 23	10 23	10 50		11 24	12 24	12 50	12 24	14 24	14 50	15 23	16 23	14 50			18 25
_	331/4	=	Thurston	u	05 37	06 21	07 30	08 30	00 30	09 20	10 24	10 30		11 30	12 24	12 30	13 30	14 30	14 30	15 30	16 24	10 30			18 31
_	373/4	_	Elmswell				07 36				10 36			11 36				14 36		15 36					18 37
691/4	433/4	_	Stowmarket						09 14																18 45
07/4	471/4		Needham Market				07 50				10 50			11 50				14 50		15 50					18 50
81%	55%	0	Ipswich						09 28																19 02
01/4	-	18	Harwich International	a	00 07	07 00	. 00 02	07 02	07 20	10 02	11 02	11 20		12 02	13 02	13 20	14 02	13 02	13 20	10 02	17 02	17 20		10 04	17 02
_	_	_	Manningtree																		,				
_	_	_	Colchester																						
			Colchester	а	· ·	<u> </u>	<u></u>	<u> </u>	·		<u> </u>	<u> </u>	<u> </u>		<u> </u>	<u> </u>			<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u>.</u>	<u> </u>
							T		T				T												
			LE	LE LE	LE	LE	LE	LE		LE															
				1 1	1	1	1	1																	
			d 17 50		19 50			21 45																	
			d 17 58		19 58			21 53																	
			d 18 09		20 09			22 04																	
			d 18 17		20 17			22 12									100	1.0							
			a 18 3					22 25																	
			d 18 32		20 32			22 26																	
Cami	oridge	e	d	18 44 19 44																					
			d .	. 20 00			22 00			23 01															
				19 04 20 05						23 14															
Kenn				19 12 .		21 12												- 10							
Bury	St E	dmun		19 23 20 23						23 27									_						
			ds d 18 58	19 24 20 24	20 58	21 24	22 24	22 52																	
				19 30 20 30						23 33 23 40															
Elms			d	19 36 20 36			22 37												100						
			d 19 14 t d .																						
				19 50 20 50			22 50			23 54								- 10							
			a 19 28																						
			ational . a .	. 21 29				22.22		9	- 1												-		
			a																						
Co	cnest	er	a .		21 51			23 43																	

Saturdays

16 December to 19 May

																			'	0 De	ceiii	ber t	0 19	iviay
		LE	LE	LE 1	LE 1	LE 1	LE 1	LE 1	LE 1	LE 1	LE 1	LE 1	LE 1	LE 1	LE 1	LE 1	LE 1	LE	LE 1		LE 1	LE 1	LE 1	LE 1
Peterborough 🗓	d				07 50 07 58			09 50 09 58			 			13 50 13 58			15 50 15 58				17 50 17 58			19 50 19 58
March	d				. 08 09			10 09			 12 09			14 09			16 09				18 09			20 09
Manea	a				08 17 08 31 08 32			10 17 10 31 10 32			 12 17 12 31 12 32			14 17 14 31 14 32			16 17 16 31 16 32				18 17 18 31 18 32			20 17 20 32 20 32
Cambridge	d		06 42	2 07 4 08 0	4		09 44 10 00			11 44			13 44 14 00			15 44 16 00		16 44	17 44 18 00			18 44	19 44 20 00	
Newmarket	q		07 02 07 10	2 08 0		09 04 09 12	10 05		11 04	12 05		13 04	14 05		15 04 15 12	16 05		17 05	18 05				20 05	
Bury St Edmunds Bury St Edmunds	a		07 2	3 08 2	3 08 58 4 08 58	09 23	10 23		11 23	12 23		13 23	14 23	14 58 14 58	15 23	16 23		17 24	18 24		18 58	19 23	20 23	20 58 20 58
Thurston	d	06 29	07 3	0 08 3	0	09 30	10 30		11 30	12 30	 	13 30	14 30		15 30	16 30		17 31	18 31		18 58	19 30	20 30	
Elmswell	d	06 4	07 4		5 09 14	09 45		11 14	11 45		 13 14	13 45		15 14	15 45		17 14	17 45			19 14	19 45		21 14
Needham Market. Ipswich				0 08 5 2 09 0	0 2 09 28		10 50 11 02			12 50	13 28		14 50 15 02	15 28		16 50 17 02			18 50 19 02		19 28	20 02		21 28
Harwich International . Manningtree	a a										 												21 29	21 38
Colchester	а				<u> </u>					<u>. </u>											<u>.</u>			21 49

For complete service between Ely and Peterborough refer to Table T017

Table T014-R

Saturdays

16 December to 19 May

Peterborough, Ely, Cambridge and Bury St. Edmunds - Ipswich

		LE	LE	LE	LE										
Peterborough	d		 	21 45		 	 	 	 	 	 		 	 	
Whittlesea	d			21 53								- 10			
March	d		 	22 04		 	 	 	 	 	 		 	 	
Manea	d		7.	22 12											
Ely 6	a		 	22 25		 	 	 	 	 	 		 	 	
	d			22 26											
Cambridge	d	20 44	 21 4		22 44		 	 	 	 	 		 	 	
Dullingham	d		22 00	. (23 01								141		
Newmarket		21 04	22 0	5	23 06		 	 	 	 	 		 	 	
Kennett		21 12			23 14										
Bury St Edmunds		21 23	22 23	22 52	23 27	 	 	 	 	 	 		 	 	
Bury St Edmunds	d	21 24	22 24	1 22 52											
Thurston	d	21 30	 22 30		23 33		 	 	 	 	 		 	 	
Elmswell	d	21 36	22 3	5 .	23 40										
Stowmarket	d	21 45	 22 4	23 08	23 49	 	 	 	 	 	 		 	 	
Needham Market.	d	21 50	22 50		23 54										
Ipswich	а	22 02	 23 02	2 23 22	00 05	 	 	 	 	 	 		 	 	
Harwich International .	а														
Manningtree	а		 	23 32		 	 	 	 	 	 		 	 	
Colchester	а			23 43								7			

Sundays

10 December to 13 May

		LE	-	LE 1	LE 1	LE	LE 1	LE	LE 1	LE 1	LE 1		LE	LE 1	LE	LE									
Peterborough	4				11 50		. 13 5		. 15 4	,	. 17 45			19 47											
Whittlesea	d				11 58		13 5		15 5		17 53			19 55											
March	u				12 09		. 14 0		. 16 0		. 18 04			20 06		*						100		- 10	
Manea	u				12 07		140		. 10 0	0	. 10 04			20 00											
Ely 6	a				12 31		14 3		16 2		. 18 23			20 25											
Ely 🚨	d				12 31		14 3		16 2		18 29			20 29											
Cambridge	d	09 I	2 11			13 1		15 1		. 17 1		-	19 12			2 22 5	n .	· ·	· ·	-	-				·
Dullingham		09 2				13 2		15 2		17 2			19 28			23 0									
Newmarket		09 3				13 3		15 3		. 17 3			19 34			1 23 1									
Kennett		09 4				13 4		15 4		17 4			19 42			23 2									
Bury St Edmunds					12 50						4 18 55			20 55				1	-	1					
Bury St Edmunds											5 18 55			20 55											
Thurston		10 0			12 30	14 0		16 0		. 18 0			20 01			23 3			1				8		
		10 0				14 0		16 0		18 0			20 07			23 4									
Elmswell					12 14		8 15 1				8 19 11			21 11						- 1					
		10 2				14 2		16 2		18 2			20 23			3 23 5									
											6 19 25			21 25				1		1					
lpswich			0 12	2 30	13 20	14 3	0 15 2	10 3	D 17 Z	5 10 3	0 19 23				22 30	00 1									
Harwich International	a	- 1									19 35		21 05	21 35			1 .	- 8	- 6						
Manningtree	а																								
Colchester	a		_						<u>.</u>	<u>.</u>	19 46			21 46	·		<u> </u>	<u> </u>	<u> </u>				<u> </u>		

For complete service between Ely and Peterborough refer to Table T017

Ipswich to Cambridge and Peterborough

Mondays to Fridays

			1	1	1	0	0	0	0	0	0	0	0
London Liverpool St	⊕ d		1			0625	0700c	0755	0830	0900	1000	1030	1100
Colchester	æ d		0540		0615	0723	0751c	0847	0923	0947	1047	1123	1147
Harwich Int.	∌ d		0529	1800		0657b	0750	0833b		0933b	1033b		1133b
Manningtree	d		0549		0623	0731	0759	0855	0931	0955	1055	1131	1155
Ipswich	≇ d	0510	0600	0616	0654	0803	0820	0920	1000	1020	1120	1158	1220
Needham Market	d	0520		0625	0703		0829	0929		1029	1129		1229
Stowmarket	d	0526	0612	0631	0709	0816	0835	0935	1012	1035	1135	1211	1235
Elmswell	d	0535		0639	0717		0844	0943		1043	1143		1243
Thurston	d	0541		0645	0723		0850	0949		1049	1149		1249
Bury St Edmunds	а	0548	0628	0651	0729	0831	0856	0955	1028	1055	1155	1227	1255
Bury St Edmunds	d	0549	0629	0654	0733	0832	0857	0957	1029	1057	1157	1229	1257
Kennett	d	0600		0704	0743			1007			1207		
Newmarket	d	0609	100	0714	0752		0916	1017		1116	1217		1316
Dullingham	d	0614		0719	0800	1	0921			1121			1321
Cambridge	æ a	0633		0739	0819		0939	1039		1139	1239		1339
Ely	æ a		0656			0858			1058			1258	
Ely	æ d		0656			0858			1058			1258	
Manea	d		0707			0909			1109			1309	
March	d		0715			0917			1117			1317	
Whittlesea	d		0726			0928			1128			1328	
Peterborough	æ a		0737			0939			1139			1339	

		1	13	13	10	0	13	1	1	10	0	0	1
London Liverpool St	O d	1200	1230	1300	1400	1430	1500	1600	1630	1700	1750	1830	1900
Colchester	<i>≇</i> d	1247	1323	1347	1447	1523	1547	1647	1717	1727	1843	1923	1947
Harwich Int.	æ d	1233b		1333b	1433b		1533b	1633b		1658b	1831b	1910b	1933b
Manningtree	d	1255	1331	1355	1455	1531	1555	1655	1713	1735	1852	1932	1955
lpswich	æ d	1320	1358	1420	1520	1600	1620	1720	1749	1817	1913	2000	2018
Needham Market	d	1329		1429	1529		1629	1729	1758	1826	1922		2028
Stowmarket	d	1335	1411	1435	1535	1612	1635	1735	1804	1832	1928	2012	2035
Elmswell	d	1343		1443	1543		1643	1743	1812	1840	1936		2044
Thurston	d	1349	in a	1449	1549		1649	1749	1818	1846	1942		2050
Bury St Edmunds	а	1355	1427	1455	1555	1629	1655	1755	1824	1852	1948	2028	2056
Bury St Edmunds	d	1357	1429	1457	1557	1629	1657	1757	1830	1857	1957	2029	2057
Kennett	d	1407			1607		1707	1807			2007		
Newmarket	d	1417	2	1516	1617		1717	1817		1916	2017		2116
Dullingham	d			1521						1921			2121
Cambridge	a	1439		1539	1639		1739	1839	11	1939	2039		2140
Ely	æ a		1458			1658			1858			2059	
Ely	æ d		1458			1658			1858			2059	
Manea	d		1509			1709			1909			2109	
March	d		1517			1717			1917			2117	
Whittlesea	d		1528			1728			1928			2128	
Peterborough	≇ a	% 64	1539			1739			1939			2139	- / :

			10
London Liverpool St	0	2000	2100
Colchester	<i>≇</i> 0	2047	2147
Harwich Int.	<i>≇</i> 0	2033b	2138
Manningtree	С	2055	2156
Ipswich	<i>≇</i> 0	2117	2219
Needham Market	C	2127	2229
Stowmarket	C	2133	2235
Elmswell	c	2142	2244
Thurston	C	2148	2250
Bury St Edmunds	a	2155	2257
Bury St Edmunds	C	2156	
Kennett	C	2207	
Newmarket	C	2217	
Dullingham	C	2223	
Cambridge	# 8	2240	
Ely	<i>≇</i> = 8	1	
Ely	<i>∌</i> (1.	
Manea	c	ł	
March	C	1	
Whittlesea	c	ł	
Peterborough	∌ 8	1	

0640 Cycle restrictions apply. See page 3 for details

Appendix D - Thurston Station visual survey, 06.02.18 between 4.30 to 18.45.

	TRAIN			User	s			Vehicle L	Jsage (default	walking)
ime pm)	Direction (C) Cambridge (I) Ipswich	(P) Passenger (F) Freight	Total Passengers	(A) Adult	(T) Teen	(K) Children	On/Off Train	Car	Bus	Cycle
2.34	1	Р	5	5	0	0	Off	1		
2.51	1	F					Non-Stop			
2.55	С	Р	2 4	2	0 0	0 0	On Off	1		
3.03	C I	F F					Non-Stop Non-Stop			
3.30	С	Р	13 1	0 1	13 0	0 0	On Off		~10	
3.53	1	Р					Non-Stop			
4.24	С	Р					Non-Stop			
4.30	1	Р	7 14	4 ~7	3 ~7	0 0	On Off	4		1
4.49	С	Р	9	7 2	1 1	1 0	On Off	2 1		
4.59	C I	F F					Non-Stop Non-Stop			
5.05	1	Р					Non-Stop			
5.21	1	Р	6 18	3 ~9	3 ~9	0 0	On Off	5		
5.49	С	Р	2 17	1 ~9	1 ~8	0 0	On Off	1		1
5.55	1	F					Non-Stop			
5.18	С	Р	0 2	0 2	0 0	0 0	On Off			
6.31	1	Р	0 14	0 14	0 0	0 0	On Off	6		1

Notes:

^{1.} Train direction: Platform 1 - Cambridge; Platform 2 - Ipswich. Platform 1 only accessed over barrow crossing

^{2.} Some car arrived soley to pick up people from arriving trains and only briefly used the car park

^{3.} Most teens on the 3.30 train arrived by bus from the Thurston 6th Form College

^{4.} Other teens, on all trains, appeared to arrive by walking from Thurston Community College direction

Appendix E - Office for National Statistics 'Rural Home Working Statistics'

Percentages' and numbers of home workers, by rural-urban classification in England, 2006 to 2016

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
											percent
Urban	11.1	11.1	10.9	11.5	11.4	11.7	12.1	12.2	12.6	12.8	12.6
Rural	18.8	18.3	19.2	19.6	19.9	20.8	21.8	22.0	21.9	22.2	22.4
Rural town & fringe	14.5	14.1	13.6	14.6	14.7	15.0	15.8	16.0	16.1	16.6	16.7
Rural villages	20.6	19.9	21.6	21.5	22.0	22.3	23.8	24.7	25.2	24.4	24.2
Rural hamlets & dispersed	28.0	27.6	30.0	29.7	29.3	33.5	34.1	33.0	31.1	33.2	33.9
						I					
England	12.6	12.5	12.5	13.1	13.1	13.3	13.9	14.0	14.3	14.5	14.3
						i .				1	thousands
Urban	2,163	2,170	2,139	2,229	2,198	2,322	2,443	2,507	2,660	2,766	2,756
						!					
Rural	895	873	929	944	966	920	986	1,002	998	1,033	1,051
Rural town & fringe	328	321	306	332	326	330	352	354	360	380	385
Ruralvillages	368	355	389	382	404	311	342	363	364	355	366
Rural hamlets & dispersed	200	198	235	230	236	279	291	285	275	298	300
						I .					
England	3,057	3,044	3,069	3,173	3,163	3,242	3,428	3,510	3,658	3,799	3,807

Note: 2006 to 2010 data are classified using the Rural Urban Classification 2001. Data from 2011 are classified using the Rural Urban Classification 2011.

Of all those employed and age 16 or over

