



Sileby & Barrow Upon Soar

Traffic and Transport Study

2016



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Appendix 1- Plan of Issues in Sileby and Barrow upon Soar

Appendix 2 – Plan of developments in Sileby and Barrow upon Soar

Appendix 3 – Plan of developments and issues combined

From Front Cover:

Photo 1: Sileby Marina (www.geograph.org.uk); Photo 2: Seagrave Park Development; Photo 3: Bridge Street delays (Barrow upon Soar).

1. Introduction

- 1.1. This report summarises current transport conditions and known development proposals in Sileby and Barrow upon Soar in order to inform future highway advice on development proposals in these villages.
- 1.2. The villages of Sileby and Barrow upon Soar are located in the Soar Valley within the borough of Charnwood in Leicestershire. The village centres are 2.5 miles apart and have a combined population of around 15,000. Barrow upon Soar has a population around 6,000 and is 3.5 miles South East of Loughborough. Sileby has a population of around 9,000 and is 8.5 miles North of Leicester. The location of these two villages is shown in Figure 1.
- 1.3. Residents from both villages have raised ongoing concerns relating to traffic movements within the villages. There are also concerns from both Parish Councils regarding proposed new developments and the impact these could have on traffic movements.
- 1.4. Charnwood Borough Council is the local Planning Authority for both settlements and as such is responsible for developing planning policy and determining planning applications. The Borough Council consults Leicestershire County Council on planning applications in its role as the Local Highway Authority. In considering planning applications the Highway Authority reviews the predicted impact on the highway network in relation to the safe and efficient functioning of the transport network and any mitigation that is proposed to offset any severe impacts before providing highway advice to inform the planning decision.
- 1.5. Leicestershire County Council through its current Local Transport Plan (LTP3) is committed to supporting the economy and population growth as well as improving the quality of life for all residents.
- 1.6. Good development proposals consider the impact on the transport network, for example how those who live in a new development are likely to travel, including the routes they will take, their choice of transport and the impact this will have on the network.

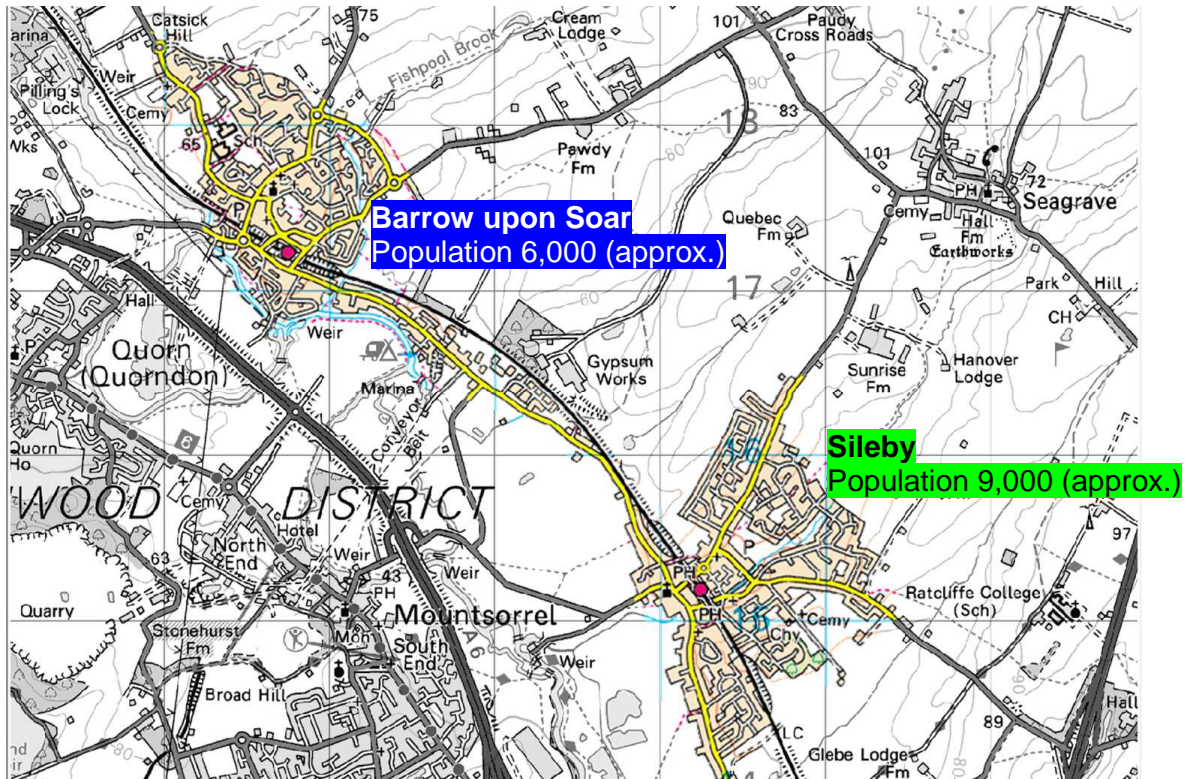


Figure 1- Map showing the location and population of Sileby and Barrow upon Soar. Population estimates from the 2011 census.

2. Current Traffic and Transport Conditions

A plan showing the spatial location of the points considered in this section can be found in Appendix 1.

2.1. Road Network

- 2.1.1. The current road network consists of classified roads, unclassified residential estate roads and unclassified distributor roads. There are no strategic A or B classified routes within either village, however the A6 and A46 are close by. The A6 is a dual carriageway which was constructed in the 1990's and is the main route between Leicester and Loughborough. This route lies to the west of the two villages and acts as a bypass for the Soar Valley settlements. Since the opening of the A6 the Soar Valley corridor has seen significant new development. The A46, which lies to the east of the two villages, is also a dual carriageway which is part of the strategic road network and is managed by Highways England.
- 2.1.2. HGV movements are currently prohibited in both villages (except for loading). The only lorry route in the area is from the A6 to the industrial estates located on Sileby Road (Barrow upon Soar) and which use us Slash Lane as an access.
- 2.1.3. Both Sileby and Barrow upon Soar are within close proximity of the River Soar and its wide floodplain which can impact on the local road network.
- 2.1.4. Given the low lying nature of the Soar Valley, it is not uncommon for some routes across it to flood periodically- especially Slash Lane, which has been identified by the Environment Agency (EA) as being susceptible to a 1 in 1 year event. Barrow Road between Barrow and the A6 is also susceptible to flooding, with EA defences protecting the road to limit the risk to a 1 in 10 year event. When flooding occurs the alternative routes carry an increased volume of traffic through both Sileby and Barrow upon Soar, including HGV traffic. The diversionary routes are not defined, thus incorporating many of the classified roads in both villages.
- 2.1.5. The current river crossings in and the around the two villages constrain capacity. The crossing at Bridge Street (Barrow upon Soar) and Sileby Road (Mountsorrel) are both restricted to 1 way traffic flow. Bridge Street operates a traffic signal solution, whereas Sileby Road

(Mountsorrel) works on an informal “give and take” basis. Both these roads provide the main route to the A6 from each village.

2.2. Transport Modelling

2.2.1. Transport models provide evidence to assist the County Council in making informed decisions on the allocation of resources, making bids to secure additional funding, appraising highways schemes and identifying schemes to mitigate the impacts of future development.

2.2.2. The Leicestershire and Leicester Integrated Transport Model (LLITM) is a strategic land use and transport model developed and maintained by Leicestershire County Council. LLITM consists of the following interlinked programmes:

- SATURN - Highway Assignment Model;
- EMME- Public Transport Model;
- DELTA - Land Use Model;
- EASE - Environmental Module; and
- EMME - Demand Model.

2.2.3. The model has been built in accordance with the Department for Transport’s modelling and appraisal guidance (WebTAG), and has been used to assess a range of transport schemes, the impact of development proposals, Local Plan strategy development, and as a tool to secure funding for wider-ranging transport infrastructure.

2.2.4. The land use model generates residential and employment travel demand which is translated into trips between locations by mode and frequency using the demand model. These trips are assigned to their respective highway and public transport networks to determine route choice. The entire process recognises the interdependency between demand, travel choices and travel costs by looping runs of each of the models until the relationship between trip patterns and trip costs are stable. In this report LLITM has been used to analyse link volume capacities for the two villages, using 2016 as the base year.

2.3. Volume Capacity (V/C)

2.3.1. Highway network capacity is determined by a calculation which considers the theoretical capacity of a link (road) which is based on the design and the actual volume of traffic which uses it. The percentage figures used in the report have been calculated from LLITM data.

2.3.2. Four critical thresholds of V/C percentage are commonly used when analysing data;

- Below 70% V/C indicates that the link is operating within capacity and therefore remains effective.
- 70% V/C indicates that the link is nearing its effective operational capacity; that some queuing and delay may occur on occasion or at peak times.
- 85% V/C indicates that the link has exceeded its effective operational capacity and queuing and delays are likely to be a frequent issue.
- 100% V/C indicates that the link has exceeded its theoretical maximum capacity, and that queuing and delays are likely to be a significant and recurring issue.

2.3.3. In 2016 LLITM shows that generally the road network in both Sileby and Barrow upon Soar operates well, even at peak times. V/C's are generally very low; however there are some notable exceptions to this. Table 1 details all peak time link V/C's with a percentage of over 70%. These pinch points are found closer to both village centres where the road network is more restricted. Therefore the LLITM model suggests that delays will occur at these locations during peak periods.

2.3.4. Some capacity issues are not picked up through the V/C analysis run by LLITM; most common are temporary obstructions, such as on street parking, which disrupts the highway geometry and subsequent flows

V/C %	Roads	Direction	Village	Indicative cause of issues
95	Bridge Street	Westbound	Barrow upon Soar	Narrow bridge has led to traffic signals being installed, this only allows for traffic to flow one way at a time into and out of Barrow upon Soar.
87	Barrow Road (approach from Quorn)	Eastbound	Barrow upon Soar	
86	Mountsorrel Lane	Eastbound	Sileby	Narrow road with poor geometry, visibility and lack of priority turning at junction with Barrow Road/High Street in the village centre.
81	Grove Lane	Southbound	Barrow upon Soar	Lack of priority turning at junction with South Street in the village centre.
81	King Street	Southbound	Sileby	Extremely poor visibility and lack of turning priority at junction with High Street in the village centre.

Table 1: All link v/c's over 70% in Sileby and Barrow upon Soar 2016

2.4. Traffic Flows and Queue Lengths

2.4.1. At the 5 sites which have been identified as being over capacity, traffic flow and queue length surveys have been undertaken. The results from these surveys are outlined in table 2.

Location	Direction	Traffic Count		Queue Length (Max.)	
		AM Peak	PM Peak	AM Peak	PM Peak
Bridge Street (Barrow upon Soar)	Westbound	726	584	45	42
Barrow Road (approach from Quorn) (Barrow upon Soar)	Eastbound	562	716	28	31
Mountsorrel Lane (Sileby)	Eastbound	188	260	6	15
Grove Lane (Barrow upon Soar)	Southbound	275	221	9	7
King Street (Sileby)	Westbound	215	186	12	7

Table 2: Traffic counts and Queue Length during peak times in Sileby and Barrow upon Soar.

2.4.2. Traffic flow analysis shows how many vehicles use the most worst performing links during the peak hours. This shows that the routes with a high V/C also have a relatively high traffic count.

2.4.3. Observations of queue length are broadly consistent with the LLITM V/C predictions given in table 2 shows that the links which are approaching capacity also suffer from long queues during the peak periods.

2.4.4. Bridge Street/Barrow Road in Barrow upon Soar is the link over the whole study area which exceeds its capacity by the greatest extent. Between 07:50 and 08:05 in the AM peak and between 17:00 & 17:15 in the PM peak traffic has been observed queueing up to and past the roundabout with High Street/South Street. Limiting capacity here is the bridge over the River Soar which operates a traffic light system as it is too narrow for 2 way traffic flow.

2.5. Parking

2.5.1. Off street parking provision in both village centres is currently provided and managed by Charnwood Borough Council. The parking is free of charge and unregulated. Sileby has 88 standard bays and 5 disabled bays. Barrow upon Soar has 32 standard bays and 1 disabled bay at the High Street Car Park. In addition there is a small private car park for Co-Op customers on Barrow upon Soar High Street.

2.5.2. Regulated on street parking bays are also provided in both village centres, which are limited to 40 minutes free parking between 8am and 6pm/8pm on weekdays.

2.5.3. Residential parking in both villages is generally considered to be adequate; however there are specific locations mainly in the centre of both villages where current demand exceeds availability. This is particularly true for King Street and Seagrave Road (between High Street and Highfield Road) in Sileby and Sileby Road in Barrow upon Soar where excessive on-street parking impedes vehicle flow and access in both peak and off peak periods.

2.5.4. Customer correspondence received by Leicestershire County Council has raised on-street parking as an issue on the roads listed in Table 3.

Sileby	Barrow upon Soar
Barrow Road	Beveridge Street
Burton Road	Breadcroft Lane
Cossington Road	Church Street
King Street	Cotes Road

Mountsorrel Lane	Grasmere Close
Ratcliffe Road	Mill Lane
Seagrave Road	Sileby Road
Swan Street	Thirlmere Road
	Warner Street

Table 3: Roads with multiple enquiries received by Leicestershire County Council relating to parking.

2.6. Speeds

2.6.1. The Department for Transport's *Setting Local Speed Limits* (2012)¹ states:

"The underlying aim of speed management policies should be to achieve a 'safe' distribution of speeds that reflects the function of the road and the impacts on the local community."

It is suggested that those ranges of 85%ile speed should be within 7mph of the proposed limit and are as follows:

- 30mph speed limit – up to 37mph;
- 40mph speed limit – up to 47mph;
- 50mph speed limit – up to 57mph.

2.6.2. All roads within both villages currently have a 30mph speed limit. Roads between and surrounding the villages have a mixture of 40mph and National Speed Limit roads.

2.6.3. When considering LCC Customer Correspondence; speeding is considered by residents and parishes a long standing issue in both Sileby and Barrow upon Soar, predominantly on roads away from the main village centres, on the edges of the built up areas.

2.6.4. Table 4 shows the speeds recorded on 30mph roads within the two villages; the data here is broadly consistent with the Department for Transport's guidance on setting local speed limits and suggests motorists are generally compliant with the posted speed limits. The exception is

¹ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/2733/setting-local-speed-limits.pdf

Fishpool Way, in Barrow upon Soar where the road geometry and lack of direct frontage development gives rise to vehicle speeds more consistent with a 40mph speed limit than a 30mph speed limit.

2.6.5. Taking into account the recorded vehicle speeds shown in Table 4, the County Council does not currently consider that any further action is required to reduce vehicle speeds in the two villages.

2.6.6. Vehicle Activated Signage (VAS) is currently in place on Barrow Road and Ratcliffe Road in Sileby, which flashes a reminder to speeding motorists entering the village using the roads. There is also VAS on Sileby Road in Barrow upon Soar.

2.6.7. Ratcliffe Road on the outskirts of Sileby is also listed as a location of “community concern” by Leicestershire police; as a result it is periodically visited by a mobile speed enforcing vehicle.

Sileby	Barrow Road (Boundary)	Cossington Road (Boundary)	High Street	King Street	Mountsorrel Lane (Boundary)	Ratcliffe Road (Boundary)	Seagrave Road (Boundary)
85 th Percentile (MPH)	35	33	26	29	31	37	38
Barrow upon Soar	Bridge Street (Boundary)	Cotes Road (Boundary)	Fishpool Way (Boundary)	Melton Road (Boundary)	Sileby Road (Boundary)	South Street	Nottingham Road (Boundary)
85 th Percentile (MPH)	27	38	40	27	36	30	34

Table 4: Summary of average speeds in Sileby and Barrow upon Soar (value given is the most recent survey). All sites in this table have a 30mph limit.

2.7. Accidents

2.7.1. Over the 5 years between June 2010 and June 2015 there were 74 reported personal injury accidents in Sileby, Barrow upon Soar and the immediate surrounding area.

2.7.2. Of these accidents 65 were recorded as slight and 9 were described as severe. There were no fatal accidents during this time period.

2.7.3. Table 5 shows a comparison between accident rates in Sileby and Barrow upon Soar with the wider population. Barrow upon Soar has a slightly higher rate of accidents when compared to Sileby; however

looking at the wider area the rate of accidents in the two villages is much lower than the national average.

	Number of accidents per year	Resident Population	Accident Rate per 100,000 people
Sileby	7.6 (2010/15 Average)	9,000	84.4
Barrow upon Soar	7.2 (2010/15 Average)	6,000	120
Sileby and Barrow upon Soar	14.8 (2010/15 Average)	15,000	98.7
Charnwood	398 (2013 Figure)	173,545	229.3
Leicestershire	1,889 ² (2013 Figure)	980,800	192.6
England	194,477 ³ (2014 Figure)	53,012,456	366.9

Table 5: Casualty rate per head of population

2.7.4. There are a few locations which can be described as accident hotspots. These hotspots have had 3 or 4 accidents within close proximity of one another over a 5 year period from September 2010 to September 2015. These sites are detailed in table 6. They are also mapped as part of appendix 1.

Sileby	Barrow upon Soar
High Street- 3 slight accidents have been recorded in the vicinity of the King Street junction. Only 2 are junction related.	Bridge Street- 4 slight accidents, all of which have involved cyclists conflicting with cars. There is no discernible pattern to the accidents; 1 accident included a cyclist who disobeyed the traffic signal and 1 where a cyclist failed to recognise the red traffic signal.
	High Street- 4 slight accidents occurred all of which have involved conflicts between cars and pedestrians. In 2015 road safety improvements were made at the two existing zebra crossings; new Zebrite Belisha Beacons were installed to improve the conspicuity of the crossings.

Table 6: Accident hotspots in Sileby and Barrow upon Soar

² http://www.leics.gov.uk/road_safety_in_leicestershire_2013_web_version-2.pdf

³ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/463045/rrcgb2014-01.pdf

2.8. Rail Service Provision

2.8.1. Both Sileby and Barrow upon Soar have stations on the Ivanhoe Line, with trains running hourly (Monday-Saturday) between Leicester, Loughborough, Nottingham and Lincoln. East Midlands Trains currently operate the service and manage the stations. Table 7 shows the estimated station usage between 2012 and 2015⁴.

Station	Entries and Exits		% Difference
	2014-15	2013-14	
Sileby	113,626	111,478	+6.3%
Barrow-upon-Soar	93,010	89,374	+4.0%

Table 7: estimated station usage in Sileby and Barrow-upon-Soar.

2.8.2. The reason behind increases in usage at both stations is unclear. However figure 2 shows that this is in line with the general trend for both stations over the past 10 years.

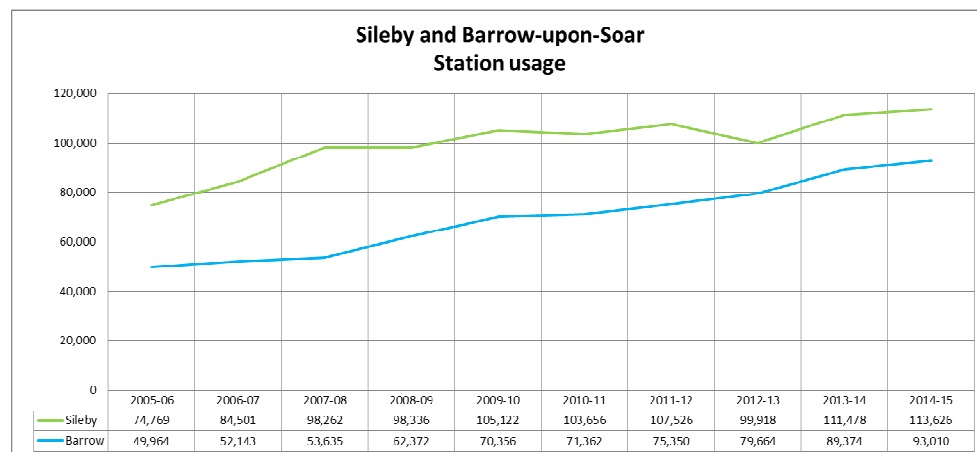


Figure 2: estimated patronage from Sileby and Barrow-upon-Soar stations between 2005 and 2015.

2.8.3. Both stations are unstaffed with no ticket collection or purchasing facilities and lack many of the facilities present at other larger stations

⁴ <http://orr.gov.uk/statistics/published-stats/station-usage-estimates>

(such as Loughborough). There is also no disabled access at either station and there are no current plans to alter station access facilities.

2.9. Bus Service Provision

2.9.1. Both villages are served by the same two bus routes. The number 2 is currently operated by Kinchbus with a frequency of 2 buses per hour in each direction. The number 27 route is operated by Roberts Coaches and runs between Loughborough and Thurmaston; with a frequency of 1 bus per hour in each direction. These services are outlined in table 8.

2.9.2. The Kinchbus 2 service fully commercial, however the Roberts Coaches 27 service is fully subsidised by Leicestershire County Council. The cost to the council of subsidising the number 27 service is approximately £44,000 in 2015/16. By 2020/21 it is anticipated that the subsidy required will rise to over £178,000; this rise is due to the end of S106 funding from developers.

2.9.3. The county council does not currently plan to make changes to the Service 27; however it is subject to the current review of all subsidised local bus services in Leicestershire as part of the Countywide Accessibility Policy Review (CAPR). The purpose of the CAPR report is to identify savings for the County Councils Medium Term Financial Strategy (MTFS).

Operator	Service and key destinations	Monday to Saturday Frequency		Sunday Frequency
		Daytime	Evening	Daytime
Kinchbus	2: Leicester – Birstall – Sileby – Barrow upon Soar – Quorn – Loughborough	30 minutes	30 minutes - hourly	Hourly
Roberts Coaches (Subsidised by LCC)	27: Loughborough – Barrow upon Soar - Seagrave – Sileby – Mountsorrel – Syston – Thurmaston	Hourly	Hourly	No Service

Table 8: Bus service Information for routes serving Sileby and Barrow upon Soar.

2.9.4. Approximate bus patronage figures for the number 2 route through Sileby and Barrow upon Soar can be found in Figure 3. The data shows that the route has a higher patronage from Sileby in comparison to Barrow upon Soar. The data also shows that despite patronage falling in recent years it is now on the rise again.

2.9.5. The number 27 route carries a significantly lower number of passengers. Once more there are more users from Sileby in comparison to Barrow upon Soar. This data is shown in Figure 3.

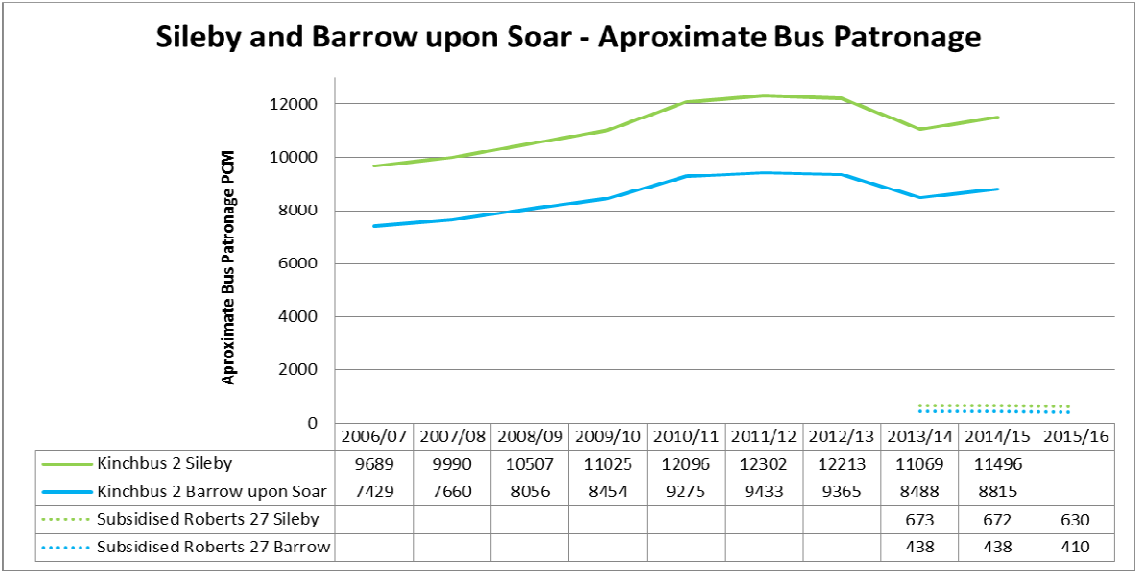


Figure 3: Bus patronage in Sileby and Barrow upon Soar over time (approximate bus patronage per calendar month).

2.9.6. A map showing the two routes can be found in Figure 4.

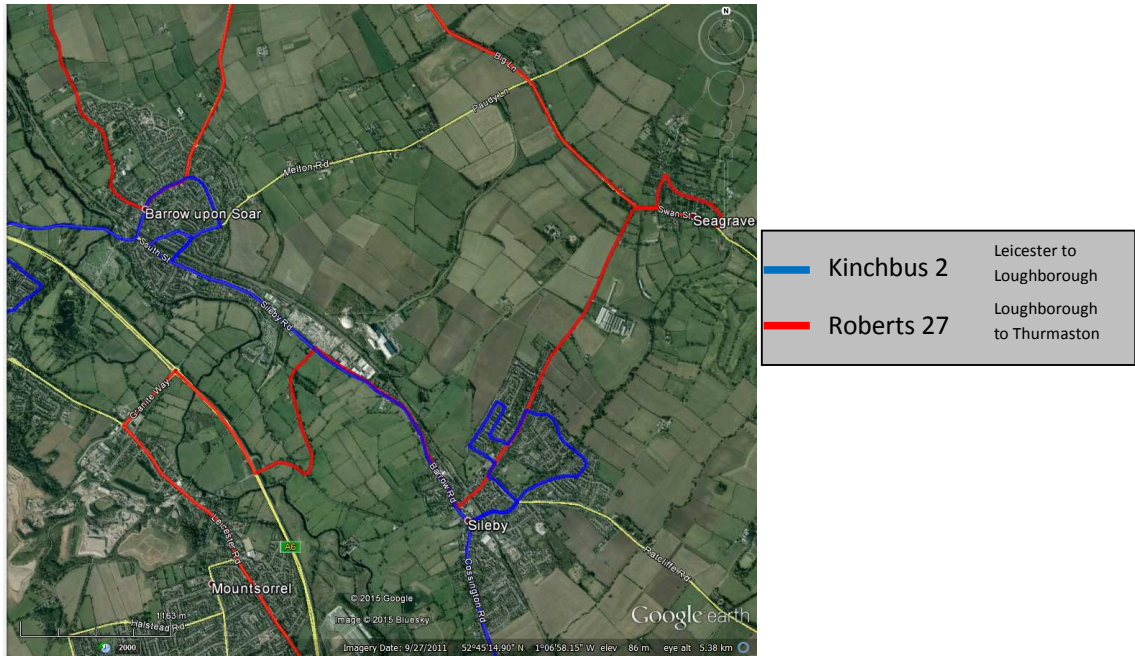


Figure 4: Plan showing bus routes through the two villages.

2.10. Active Transport

2.10.1. There is currently very little provision for off carriageway cycling in both villages, therefore the majority of cycle trips are undertaken using the road network.

2.10.2. The new development recently completed on Willow Road in Barrow upon Soar does feature limited off road cycle track. There is also an off road cycle link between Barrow upon Soar and Quorn villages (known locally as “The Slabs”), as well as the towpath along the River Soar towards Loughborough. Figures 5 and 6 show popular cycling routes in both of the settlements.

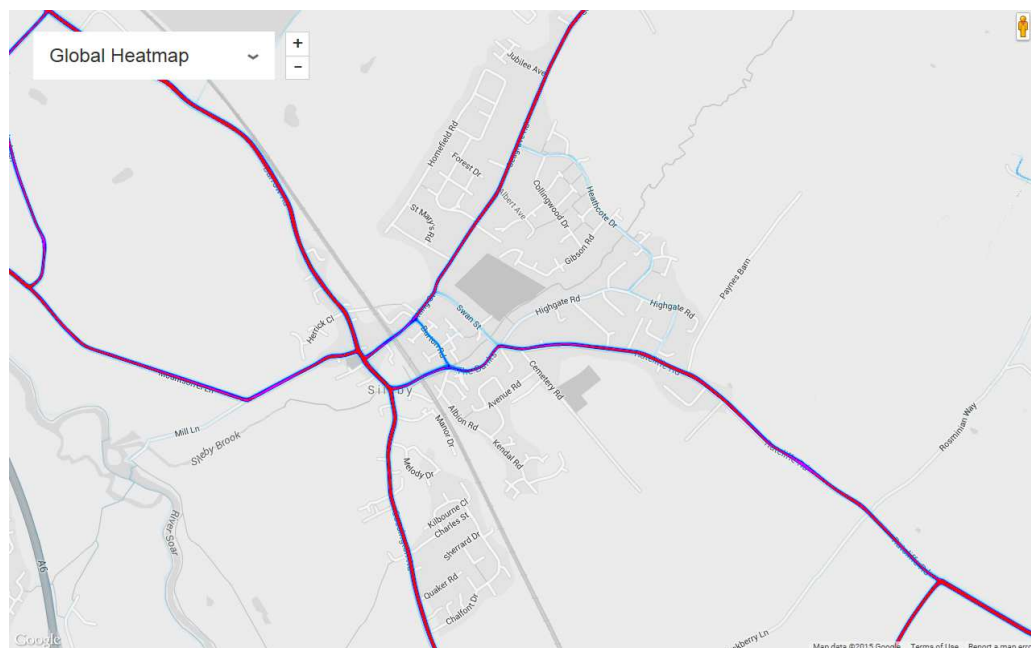


Figure 5: Plan showing popular cycle routes in Sileby (Source: Strava Global Heatmap)

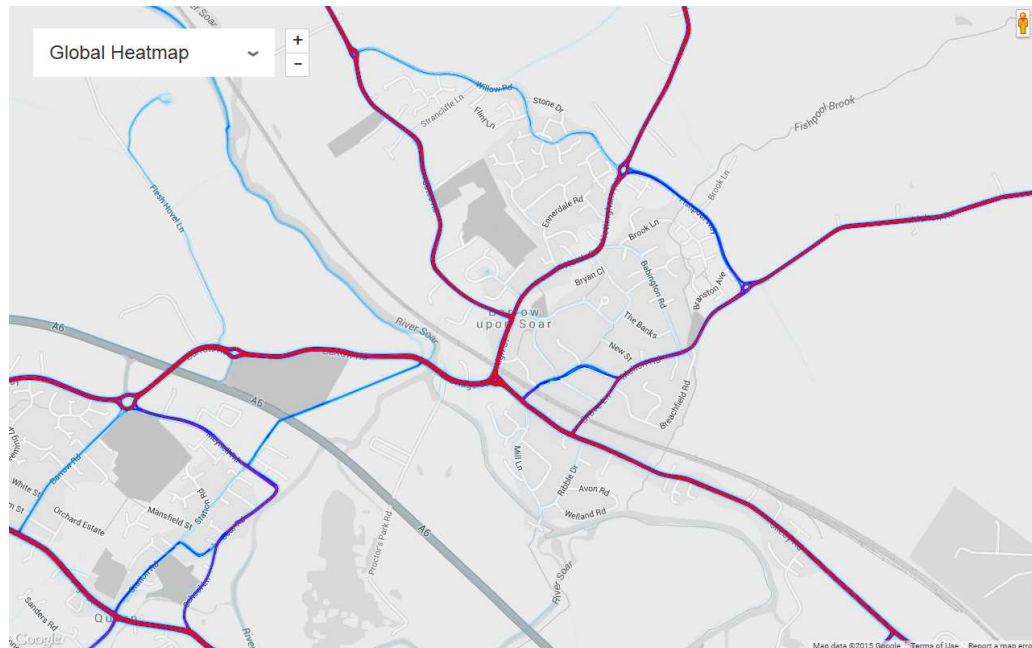


Figure 6: Plan showing popular cycle routes in Barrow upon Soar (Source: Strava Global Heatmap)

For additional information on Strava Global Heatmap view:

<http://metro.strava.com/>

2.10.3. There is an extensive local right of way network within and around both villages, with many footpaths and bridleways. The majority of these are along the river and in the floodplain between the two villages, including the Cossington Meadows nature reserve. These public rights of way are shown in Figures 7 and 8.

2.10.4. Part of Bridleway I20 in Barrow upon Soar was closed in 2008 after safety concerns surrounding its crossing of the Midland Mainline. This bridleway has not been rerouted, nor has any mitigation (such as a bridge) been provided. Network Rail has applied to formally close the route and this is currently subject to preliminary consultation.

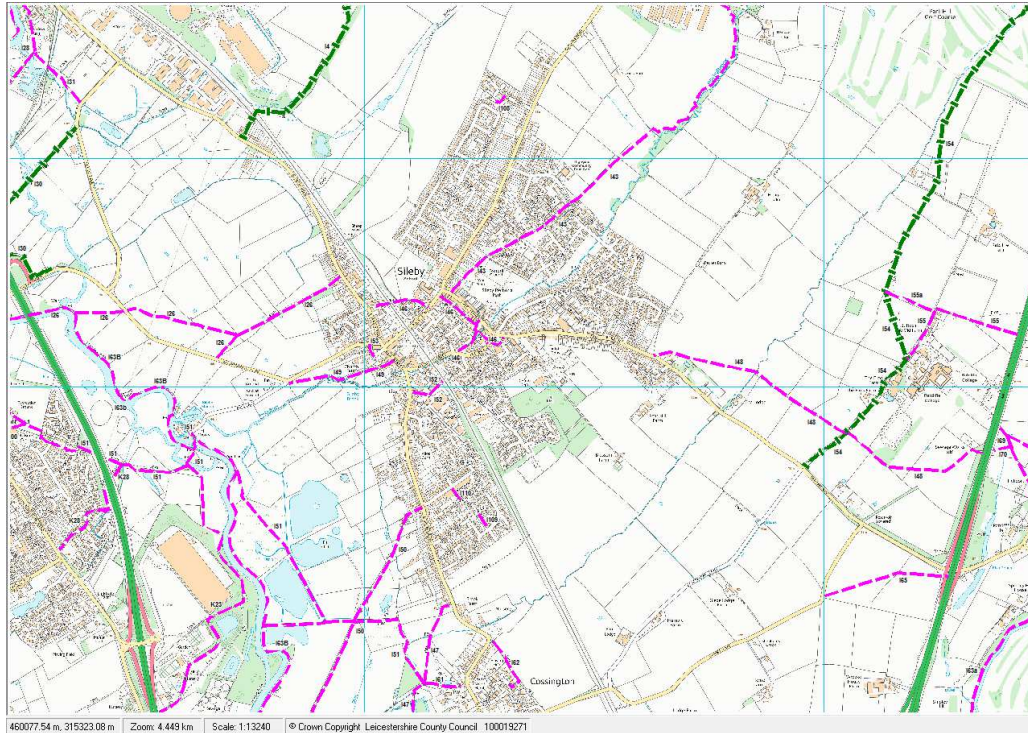


Figure 7: Public rights of way in and around Sileby.

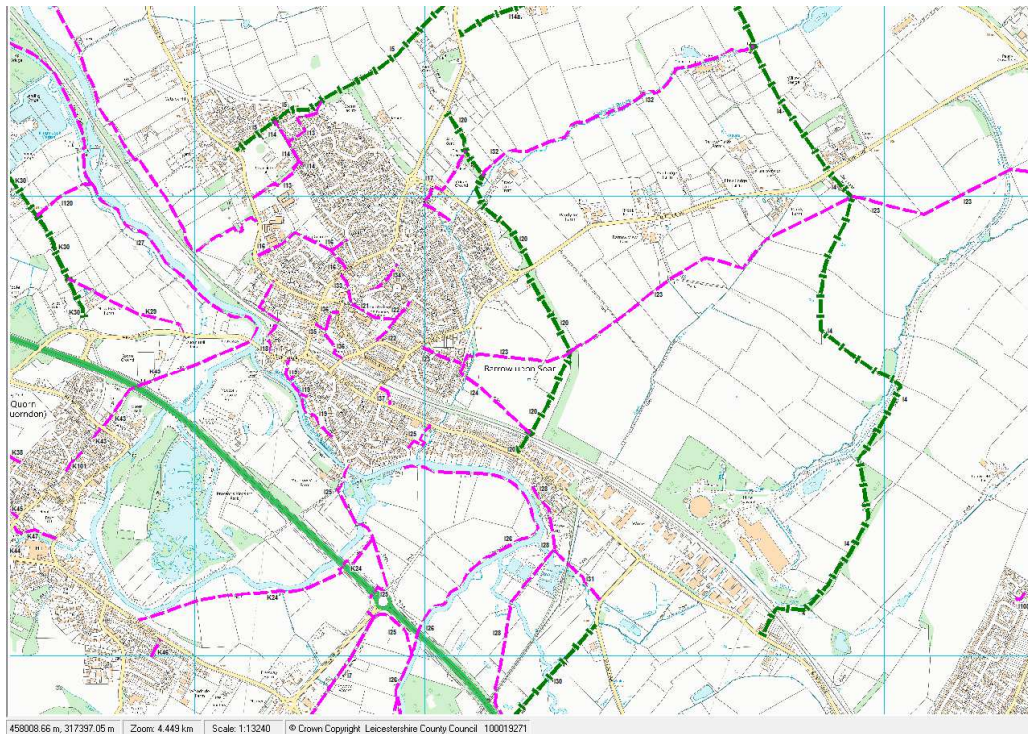


Figure 8: Public rights of way in and around Barrow upon Soar.

2.11. Recent improvements

2.11.1. Over the past few years improvement schemes have been implemented within the two villages to deal with localised issues. The schemes have been implemented predominantly by Leicestershire County Council, with a couple of developer funded schemes and one Network Rail improvement (see Table 9 below).

2.11.2. Maintenance schemes have also been completed in both villages over the past 5 years. This has included carriageway redressing, slurry sealing, pothole patching and refreshing lining schemes.

Year	Scheme	Road	Village	Proposed By	Cost Band (£)
2015/16	Replacement Footbridge	Highbridge/Barrow Road	Sileby	Network Rail	n/a
2015/16	Junction Protection	Homefield Road	Sileby	LCC	Under 1,000
2015/16	Traffic Calming	Mountsorrel Lane	Sileby	LCC	5,000-10,000
2015/16	Parking Restriction	Mountsorrel Lane	Sileby	LCC	
2015/16	Bus Stop Clearway	Sileby Road	Barrow upon Soar	LCC	1,000-5,000
2015/16	New Roundabout	Seagrave Road (opp. Jubilee Avenue)	Sileby	Developer	n/a
2014/15	Zebra Crossing improvements	High Street	Barrow upon Soar	LCC/ Parish	1,000-5,000
2014/15	School Advisory 20	King Street/Seagrave Road	Sileby	LCC	1,000-5,000
2014/15	New Roundabout	Seagrave Road/Highreeds End	Sileby	Developer	n/a
2012/13	School Advisory 20	Heathcote Drive	Sileby	LCC	1,000-5,000
2012/13	New Cycle link	The Slabs (PROW)	Barrow upon Soar	LCC	Over 10,000
2010/11	Traffic Calming	Cotes Road	Barrow upon Soar	LCC + Developer	Over 10,000
2010/11	Traffic Calming	Nottingham Road	Barrow upon Soar		

Table 9: Schemes carried out in Sileby and Barrow upon Soar between 2010 and 2015. Please note that this table does not include maintenance works.

2.12. Future Schemes

Congestion

- 2.12.1. The County Council currently has no improvements programmed at the pinch point locations identified in Table 2. At this time suitable mitigation at the main pinch points within the two villages is not considered feasible by the County Council primarily due to lack of any extra physical highway capacity at any of the worst performing junctions and the general poor geometry of the highway network in these locations.
- 2.12.2. LTP3 capital resources are currently being targeted at a limited number of priority areas delivering fewer significant infrastructure projects. This is to ensure that the authority is getting the most value from its investment against key priorities including encouraging and unlocking economic growth and is able to maximise the contributions from other funding sources.

Speeds

- 2.12.3. Leicestershire County Council considers that speeds are generally appropriate for the area and no further speed reduction schemes are currently being considered

Parking

- 2.12.4. Charnwood Borough Council is considering reviewing the King Street car park in Sileby after residents have raised concerns that too many people are using the facility as a long stay car park.
- 2.12.5. The County Council is not currently considering any residential parking schemes in the area but will continue to monitor on street parking in both villages.

Accidents

- 2.12.6. The County Council is not currently considering any further accident mitigation schemes within the two villages.

Sustainable Travel

- 2.12.7. The county Council is not currently considering any changes to the subsidised local bus which serves both villages. However, through the Countywide Accessibility Policy Review (CAPR) currently being undertaken by the County Council all subsidised local bus services are likely to be reviewed against their long term viability.
- 2.12.8. The commercial bus service serving Sileby and Barrow upon Soar is expected to run for the foreseeable future.
- 2.12.9. Rail services will continue to be operated by East Midlands Trains until at least March 2018 when the franchise will be re-tendered by the Department for Transport. There are currently no plans for station improvements in either Sileby or Barrow upon Soar. Nor is it expected that the frequency of service will change in the foreseeable future.
- 2.12.10. The County Council currently has no plans for new walking or cycling infrastructure provision in either village.

3. Developments

3.1. Context

3.1.1. The Government is committed to delivering more new homes through its economic and housing growth agenda.

3.1.2. It is the Government's aim for every area in England to have an adopted Local Plan. Local Plans set out policies to identify development requirements and inform the location and type of future development.

3.1.3. Charnwood Borough Council's (CBC) Core Strategy was adopted in November 2015 and is the primary document for the Charnwood Local Plan, superseding the Borough of Charnwood Local Plan 2004⁵. The Core Strategy provides the vision, objectives, spatial strategy and strategic policies for the Borough up to 2028. The strategy has been assessed by an independent Planning Inspector appointed by the Secretary of State and has been adopted as policy by CBC.

3.1.4. The Core Strategy reflects the Government's requirements as set out in the National Planning Policy Framework, and identifies that 14,000 new homes are needed between 2011 and 2028 across the borough. The areas of growth have been split into four areas:

- Leicester Principal Urban Area
 - Expansion of the City of Leicester in the south of the borough.
- Loughborough & Shepshed (Sub regional centres)
 - The growth surrounding Loughborough and Shepshed to the north of the borough.
- Service Centres
 - Settlements with over 3,000 inhabitants which host a good range of services, facilities and transport links to provide for

⁵ http://www.localplan.charnwood.gov.uk/user_uploads/files/Charnwood%20Local%20Plan%202011%20-%202028%20Core%20Strategy%20Adopted%20November%202015.pdf

the daily needs of both the local residents and surrounding populations.

- Other Settlements (Rest of the borough)
 - A mixture of large rural areas and smaller settlements with lower populations and fewer amenities.

Sileby and Barrow upon Soar are defined in the Core Strategy as services centre along with Anstey, Mountsorrel, Quorn, Rothley, and Syston. A plan showing Charnwood's settlement hierarchy can be found in Figure 9.

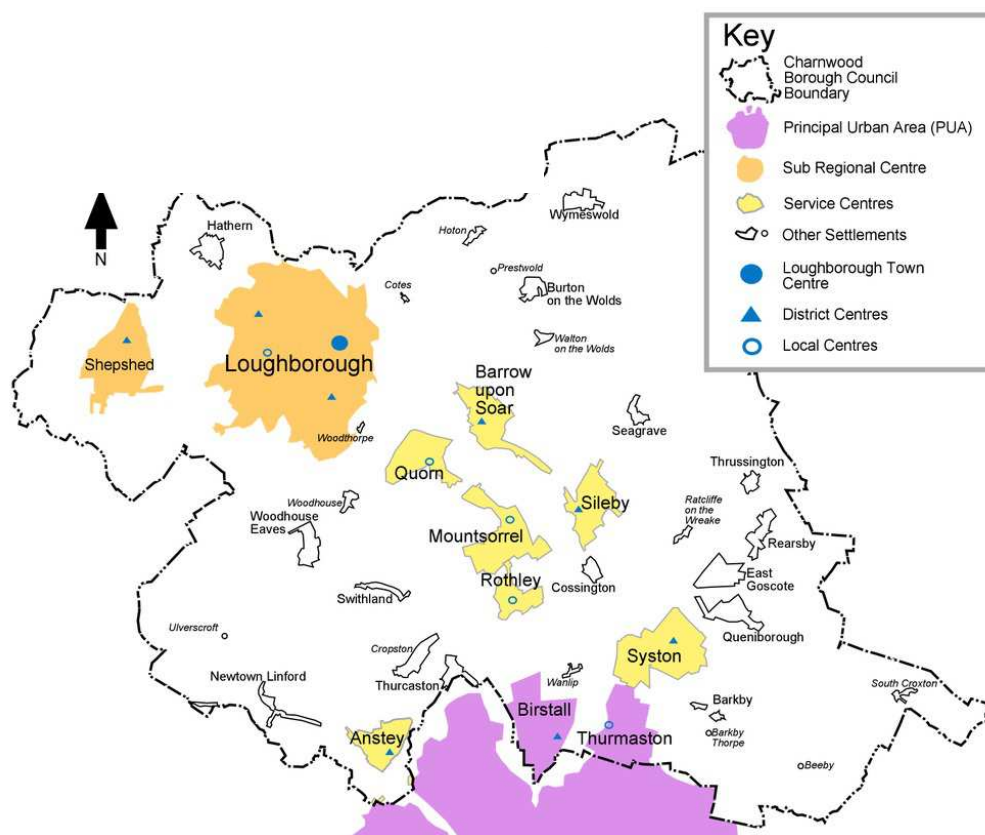


Figure 9: Settlement Hierarchy in Charnwood⁶

The relative requirements, completions and commitments for each of Charnwood's defined areas are outlined in Table 10.

⁶ <http://www.localplan.charnwood.gov.uk/content/local-development-plan.php>

	Planned Housing Requirements 2011-2028	Completions 2011-2014 (a)	Commitments as of November 2014 (b)	Total Completions/Commitments 2011-2014 (a+b)	Residual Provision Required up to 2028
Principal Urban Area	5,500	401	730	1,131	4,369
Loughborough & Shepshed	5,000	412	2511	2,923	2,077
Service Centres (Sileby & Barrow)	3,000 (n/a)	778 (281)	2682 (666)	3,460 (947)	0 n/a
Rest of Borough	500	211	676	887	0
Charnwood Total	14,000	1,802	6,599	8,401	6,446

Table 10: completions and commitments for each of Charnwood's core areas⁷.

3.1.5. The 7 service centres are identified as providing 3,000 houses between 2011 and 2028. Between 2011 and November 2014; 3,460 dwellings were completed/committed in the service centres, 947 of these dwellings were in Sileby or Barrow upon Soar. Figures for Sileby and Barrow upon Soar have been sourced from Table 11.

3.1.6. Prior to the adoption of the Charnwood Core Strategy, planning permission was granted for more housing in these two settlements than would have been anticipated due to the lack of a 5 year housing supply. The applications were considered on a site by site basis as was appropriate at the time they were submitted.

3.2. Locations of Applications in Sileby and Barrow upon Soar

3.2.1. Table 11 outlines locations within Sileby and Barrow upon Soar where planning applications have been submitted for 5 or more dwellings between 2010 and 2015.

⁷http://localplan.charnwood.gov.uk/user_uploads/files/Inspector's%20Report%20Main%20Mods%20Appendix%20amended%20Sept%202015.pdf

3.2.2. Plans showing the spatial location of these sites can be found in Appendix 2.

Application Number	Status	Development Name	Village	Development Details
P/10/1518/2	Commit	Land at Melton Road	Barrow upon Soar	292 Dwellings
P13/1889/2	Refused	Peashill Farm, Ratcliffe Road	Sileby	284 Dwellings
P/15/0047/2	TBD	Land east of Seagrave Road	Sileby	195 Dwellings
P/11/0860/2	Comp	Land off Seagrave Road	Sileby	180 Dwellings
P/12/2235/2	Commit	Land off Seagrave Road	Sileby	135 Dwellings
P//10/1772/2	Comp	Land adjacent to Stanage Road	Sileby	82 Dwellings
P/11/2540/2	Commit	Strancliffe Hall, Cotes Road	Barrow upon Soar	76 Dwellings
P/13/1023/2	Commit	Land at Nottingham Road	Barrow upon Soar	71 Dwellings
P/14/0750/2	Commit	Strancliffe Hall, Cotes Road	Barrow upon Soar	33 Dwellings
P/14/0506/2	Commit	Land at Cemetery Road and Ratcliffe Road	Sileby	24 Dwellings
P/12/1041/2	Commit	The Maltings, High Street	Sileby	21 Dwellings
P/11/1213/2	Comp	Land off Nursery Grove	Barrow upon Soar	14 Dwellings
P/14/0685/2	Commit	Land off Cotes Road	Barrow upon Soar	14 Dwellings
P/12/0933/2	Comp	The Railway Hotel, King Street	Sileby	5 Dwellings, A1 and B2
Sileby Total				447-642 Dwellings
Barrow upon Soar Total				500 Dwellings
Combined Total				947-1142 Dwellings
Comp- Completion 2011-2014, Commit- Commitment as of November 2014, TBD- To Be Determined (considered against the remaining requirement/supply up to 2028), Refused- Refused				

Table 11: List of committed/Potential/Refused developments (+5 dwellings) in Sileby and Barrow upon Soar between 2010 and 2015.

3.3. Major Developments Details (+100 Dwellings)

This section of the report reviews the larger sites individually, assessing their individual impact on the transport network

***P/10/1518/2 Land at Melton Road Barrow upon Soar 292 Dwellings
Permission Approved subject to reserved matters***

Outline planning permission has been granted (at appeal) for the Melton Road, Barrow upon Soar development for 292 dwellings subject to reserved matters being approved. Prior to the planning application this site was in agricultural use. The vehicular access to this development would be via a new roundabout on Melton Road.

***P/11/0860/2 Land off Seagrave Road Sileby 180 Dwelling
Permission approved***

This site on former agricultural land on the west of Seagrave Road is now occupied by 180 dwellings. The site is accessed from a roundabout on Seagrave road, situated close to the current village boundary. The total number of trips that were predicted to be generated by the site was 209 trips in the AM peak and 171 trips in the PM peak. Highways comments included concerns over residential parking provision within the site.

***P/12/2235/2 Land off Seagrave Road Sileby 135 Dwellings
Permission approved***

This development of 135 dwellings to the east of Seagrave Road is currently being constructed. The site will be accessed via a new roundabout on Seagrave Road, close to the junction with Jubilee Avenue. The total number of trips predicted to be generated by the site is 81 trips in the AM peak and 103 trips in the PM peak. Highways comments included concerns over a lack of access to non-subsidised public transport.

***P/13/1889/2 Peashill Farm, Ratcliffe Road Sileby 284 Dwellings
Permission refused***

The Peashill Farm proposal was refused planning permission by Charnwood Borough Council in April 2015. The development proposals showed 284 dwellings on agricultural land to the south east of Sileby. The access to this site would have been via a roundabout on Ratcliffe Road. From the transport assessment, it is predicted that there would be 162 vehicle trips in the AM peak and 178 vehicle trips in the PM peak. Highway comments included

concerns over the capacity of the proposed roundabout on Ratcliffe Road, lack of sustainable travel provision or options and concerns that the site is accessed only via a singular point of access.

***P/15/0047/2 Land east of Seagrave Road Sileby 195 Dwellings
Permission to be determined***

Charnwood Borough Council has not yet determined the application for 195 dwellings on the east side of Seagrave Road. The site is currently in agricultural use. This development will sit alongside the already committed development of P/12/2235/2. The total number of vehicular trips predicted to be generated by the site is 150 trips in the AM peak and 147 trips in the PM peak. The transport assessment suggests that the majority of these trips are expected to leave and enter the site from the north therefore not travelling into/through Sileby village centre. This site would be accessed via a roundabout on Seagrave Road, possibly linking with the existing roundabout constructed as a result of the P/11/0860/2 development. The County Highway Observations on this development were submitted in 2015 prior to the adoption of Charnwood's Core Strategy and prior to the publication of this report.

3.4 Anticipated Traffic and Transport Impact of known Development Proposals

Appendix 2 shows the location of developments and Appendix 3 shows the developments in relation to the existing traffic issues.

Those locations experiencing an increase in traffic volume are identified in the following sections.

3.4.1 Sileby

In Sileby, there is potential for an additional 510 dwellings on Seagrave Road (see Appendix 2). Transport assessments for these sites indicate that there will be an extra 861 peak time trips using Seagrave Road. When compared to pre development flows, the combined developments are expected to raise traffic levels by 77% on Seagrave Road to the south of the developments, and by 40% to the north of the development sites.

Again referring to Appendix 2; if the proposed development P/15/0047/2 does not go ahead, then traffic flow along Seagrave Road to the south of the development is predicted to increase by 434 peak time trips - equating to a 65% increase.

It can be predicted that traffic flows on Seagrave Road will increase between 65% and 77% on Seagrave Road with the potential for additional queuing and delay at the following locations:

- King Street/High Street/Barrow Road junction
- Mountsorrel Lane/Barrow Road junction
- Seagrave Road/Heathcote Drive junction

From Table 1 we can see that the junctions at King Street/High Street/Barrow Road and Mountsorrel Lane/Barrow Road have already or are close to exceeding their effective operational capacity. With developments on Seagrave Road it is predicted that queuing and delay will increase further. The more growth which occurs on the corridor, the more it is anticipated that the junction will go over capacity, potentially resulting in severe delays at these junctions.

On street parking causing disruption to the free flow of traffic is also likely to cause increasing amounts of delay as Seagrave Road gets busier. This could in turn have an impact on the operation of local bus services. This mainly applies on Seagrave Road between the junctions of Park Road and Heathcote Drive.

3.4.2 Barrow upon Soar

In Barrow upon Soar, 500 dwellings have been granted planning permission since 2011. The majority of the growth will occur at the land east of Melton Road where 292 of these dwellings are committed. An additional 123 dwellings have been granted permission of Cotes Road.

The link between Barrow upon Soar and the A6 (via Bridge Street) is listed as being one of the most overcapacity in the two villages (see table 2). The combined effect of an increase in population in Barrow upon Soar (and the surrounding area, such as Quorn) is likely to increase the stress at this location on either side of the river, especially at peak times. Developments in Sileby and other neighbouring villages are also likely to add to traffic volumes at these locations.

In 2016 the junction between Grove Lane and South Street is listed as being at 81% of its theoretical capacity and is expected to be exceeded further upon occupation of the Melton Road development.

3.4.3 Effect on Sustainable Transport

Alongside the increase in traffic volumes there is also predicted to be increases in all other modes of transport in the two villages. It is predicted that the current infrastructure and level of service are mostly sufficient to cope with an increase in usage and could benefit from a larger population.

Therefore as a result of the cumulative impact of development across the two settlements, it is expected that:

- Bus patronage will increase,
- The two railway stations will also see a rise in passenger numbers,
- There will be an increase in the amount of walking and cycling within and around the two settlements.

Funding secured by the developments is likely to have a positive impact on local bus and active modes of transport through the provision of better infrastructure (such as the provision of off carriageway cycle links and higher quality bus stops). For example S106 developer funding for the service 27 bus route will end in 2020/21 which could potentially result in the service being withdrawn. Softer measures such as travel planning and free half year bus passes are also effective in changing people's normal travel behaviour. The provision of these measures will raise awareness of sustainable travel and in doing so encouraging more people to travel using sustainable modes of transport.

Therefore the effects on sustainable modes of transport are generally beneficial as a result of developments within the two settlements.

4. Conclusion

- 4.1.** This report has been prepared to inform future highway advice on development proposals in Sileby and Barrow upon Soar.
- 4.2.** Consideration has been given to the incremental developments which have been granted planning permission over the past 5 years. The area which will see the most impact is likely to be the Seagrave Road corridor (including the King Street/High Street/Barrow Road junction) in Sileby which is predicted to see an increase in traffic volume coupled with potential increased levels of on street parking. The Local Highway Authority considers that this could cause further capacity issues at junctions within the two villages to the extent where it would consider that any further growth could have a severe impact on the network, particularly around the King Street/High Street junction and the Mountsorrel Lane/Barrow Road/High Street junction.
- 4.3.** Within Barrow upon Soar, there is expected to be an increase in traffic flows which the highway authority anticipates will result in an increase in delays in the village especially at locations such as Bridge Street and Grove Lane. Therefore, it is likely that any additional development, over and above those listed in Table 11, may well have residual cumulative impacts that the Local Highway Authority would be consider as severe. Consequently the Local Highway Authority requires that all future development proposals in Sileby and Barrow upon Soar are assessed using transport models proportionate to the scale of the development.
- 4.4.** Given that parts of the road network are currently or will become close to or over capacity, it is considered that further increases in traffic over and above those associated with current planned developments will have an unacceptable impact on the road network; unless suitable mitigation is secured. It is predicted that the sustainable transport network is likely to be used more as a result of an increase in population.
- 4.5.** At this time suitable mitigation at the main pinch points within the two villages is not considered feasible by the County Council primarily due to a lack of any extra physical highway capacity the junctions which have exceeded their capacity and the general poor geometry of the highway network in these locations.
- 4.6.** Based on housing commitment and completion figures contained in the adopted Charnwood Core Strategy to 2028, as at November 2014 there is no residual provision requirement for 'Service Centres', which include both Sileby and Barrow upon Soar.

4.7. In terms of planning to meet the area's population and economic growth needs beyond 2028, this is a matter for Charnwood Borough Council, working in cooperation with other Planning Authorities as necessary. However, reflecting advice set out in a report to the Strategic Planning Group in July 2015 the County Council, as Local Highway Authority, would expect a comprehensive study to be undertaken of flooding and transportation issues throughout the wider Soar Valley Area, e.g. including around Loughborough and down towards Cossington), in order to inform to what extent it could be made capable of accommodating further, significant new development. Such a study would need to have a focus on identifying potential 'strategic level' mitigation measures (e.g. to increase the number of 'flood free' traffic routes) in order to support any such future growth proposals.

4.8. In closing, based on the outcomes of this study, Leicestershire County Council, as the Local Highway Authority, considers that:

- a) Current Core Strategy period: Further large developments (over 10 dwellings) in Sileby and Barrow upon Soar should be resisted on highway grounds unless the proposals can demonstrate a nil-detriment position over existing traffic conditions.
- b) Growth in the Soar Valley beyond the Core Strategy period: Should be dependent on the outcomes of a comprehensive transportation and flooding study, which identifies 'strategic level' mitigation measures that, amongst other things, address the traffic issues in and around Sileby and Barrow upon Soar.

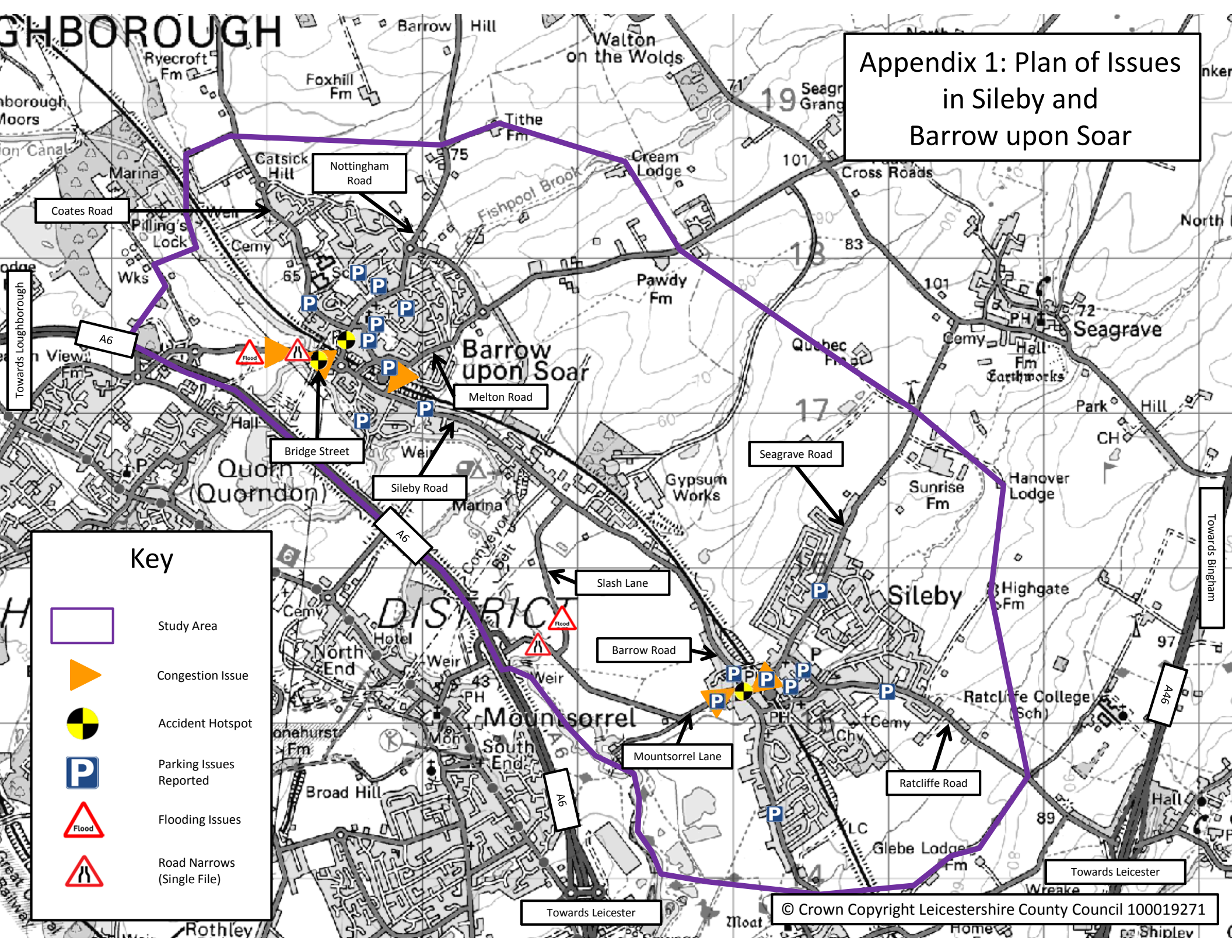
List of Appendices

Appendix 1 – Plan of issues in Sileby and Barrow upon Soar

Appendix 2 – Plan of developments in Sileby and Barrow upon Soar

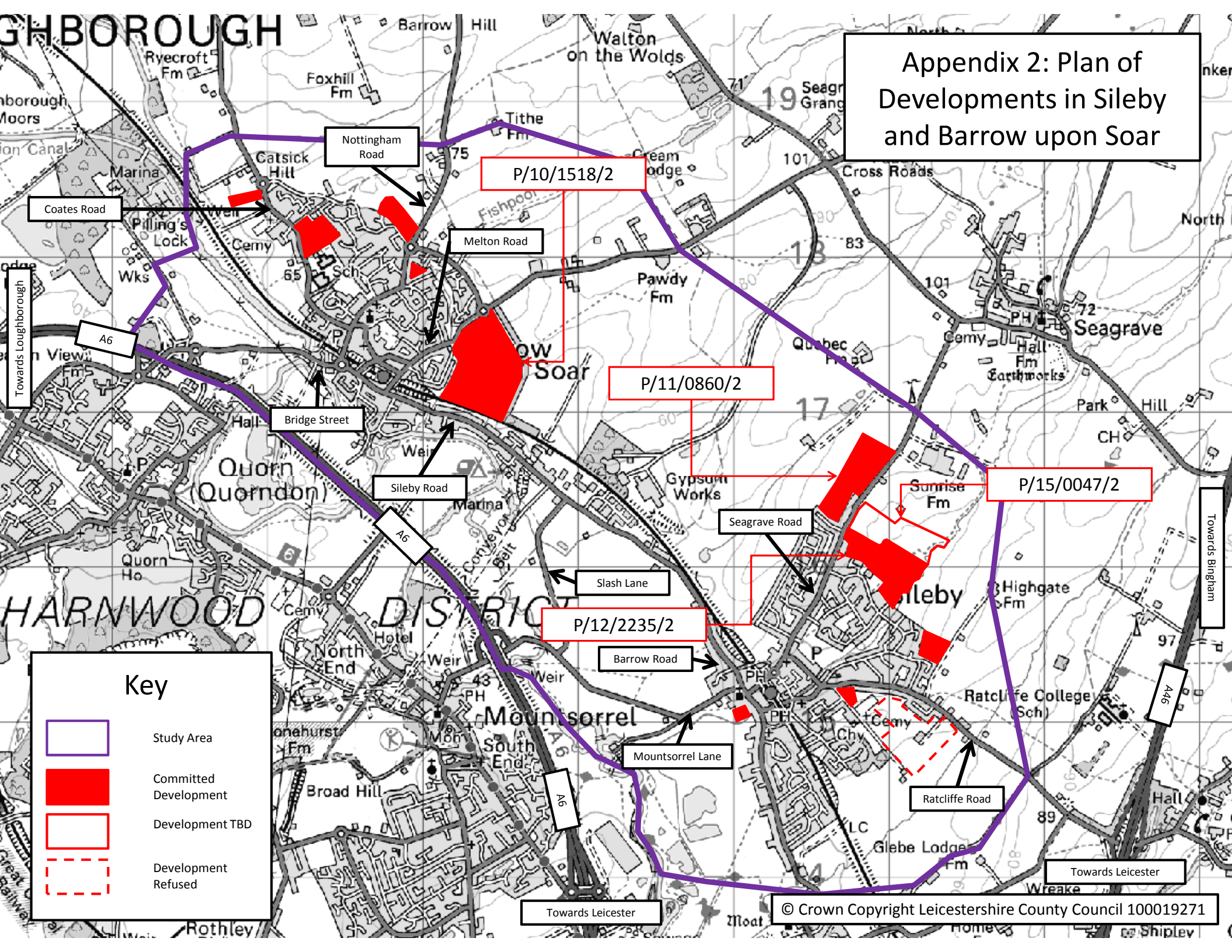
Appendix 3 – Plan of developments and issues combined

Appendix 1: Plan of Issues
in Sileby and
Barrow upon Soar



Key

- Study Area
- Congestion Issue
- Accident Hotspot
- Parking Issues Reported
- Flooding Issues
- Road Narrows (Single File)



Appendix 2: Plan of Developments in Sileby and Barrow upon Soar

Key

Study Area

Committed Development

Development TBD

Development Refused

Appendix 3: Plan of Developments and Issues

