

2. Planning refusals due to unsustainability

The following refusal and dismissal have been made recently by the local planning authority, CWaC, and the Planning Inspectorate. Their decisions have been based on Hargrave not being a location for sustainable development. The development of new-build dwellings in open countryside which was not previously developed, and the lack of sustainable transport and facilities, were again key factors, along with the impact on a grade II*-listed building and the character and appearance of the area.

14/01241/OUT and APP/A0665/A/14/2224184 – 9 dwellings

3. Conclusion

Hargrave achieves a low score in the CWaC Local Service Centre Methodology, indicating that the settlement is not a sustainable location for development.

This is reinforced by very recent Appeal and CWaC decisions, both refusing planning permission mainly on the basis that the application did not represent sustainable development.

We conclude that Hargrave is not a sustainable location for development and therefore should not be a Local Service Centre.

In accordance with STRAT 8 para 5.69, 'there will be little if any need for additional allocations to be made in the rural area'.

A.1 **Planning Consents 2010 Onwards**

Planning consent completed from 2010 onwards

Bruen Stapleford

Stapleford Hall Cottage 12/05391/573 – Change of use (holiday let to permanent residential)

Foulk Stapleford

5/01174/FUL | Conversion of existing accommodation to a single dwelling, rear single storey extension and demolition of existing swimming pool building. | Rose Bank Guy Lane Foulk Stapleford Chester Cheshire CH3 7RZ

Hatton

14/02645/LDC | The use of the buildings as two separate dwellings | Grange Farm Chester Road Hatton Chester Cheshire CH3 9AH

13/02754/S73 | Removal of condition 2 on planning permission 98/01311/COU to allow permanent occupation of 3 units (Units A-C) (Retrospective) | Golden Nook Farm Long Lane Hatton Chester Cheshire CH3 7RB

Huxley

The Inn at Huxley 12/02912/FUL-Staff accommodation
1-3 Lower Farm barns 14/01337/FUL – change of use (holiday let to permanent residential)

Total number of units 10

Planning consent completed 1995-2010

Burton

Burton Hall 02/01740/FUL – Conversion of barns to 4 units

Burton Hall 00/01476/LBC – conversion of redundant barns to 3 units

Foulk Stapleford

Walk Mill 04/01432/FUL – restoration of mill and ancillary accommodation

Hatton

02/00506/OUT | New Farmhouse | Hatton Hall Farm Hatton Hall Lane Hatton Heath Chester Cheshire CH3 9AP

0/00703/FUL | Demolition of shippon, construction of extension, replacement garage incorporating ancillary accommodation, adjustment of domestic curtilage and change of use of land | Fairfield Hatton Hall Lane Hatton Heath Chester Cheshire CH3 9AP

97/00571/COU | Change of use of part of garage to create one flat | The Poplars Whitchurch Road Hatton Heath Chester Cheshire CH3 9AU

Huxley

Chapel Cottage/Hawthorn Cottage/The Wickets
96/01198/FUL- 3 new houses

Higher Huxley Hall 07/00100/FUL – conversion of barns to 2 residential units

Total 16 units

B. Landscape, Local Character & Environment

The results of the public consultation questionnaire show how much our community values its surroundings. The request by the NDP Action Group for volunteer surveyors from the Area met with a good response. Evidence-gathering for the landscape, local character and environment of the NDP Area could therefore be carried out by volunteers during 2014. Landscape, local character and environment are simply ways of describing our 'surroundings' more accurately.

'Landscape' might be regarded by some as more accessible than 'planning', so it has also been a way of engaging residents in the NDP process. In addition whilst information is available on-line, more up-to-date data could be collected by conducting our own survey. This volunteer-led approach was enabled by a chartered landscape architect living in the Area, who was willing to volunteer and initiate the process.

DESKTOP SURVEY: RESULTS

Designations

Sites and areas in the NDP Area with a designation are shown on Plan 10 and listed in section 5.1. They include –

Heritage assets

- Listed Buildings and structures
 - Burton Hall - Grade II* (HA Uid 1130559)
 - Church of St Peter - Grade II* (HA Uid 1130643)

- Bridge over moat and archway to Lower Huxley Hall - Grade II* (HA Uid 1130648)
- Lower Huxley Hall - Grade II* (HA Uid 1130237)
- Stapleford Hall – Grade II (HA Uid 1130557)
- Barn 25m East of Stapleford Hall – Grade II (HA Uid 1130558)
- Memorial stone 250m East of Greenlooms – Grade II (HA Uid 1130641)
- Meadow FarmHouse – Grade II (HA Uid 1130642)
- Farm Buildings 10m East of Greenlooms – Grade II (HA Uid 1130644)
- Canal Bridge No 114nixons Bridge – Grade II (HA Uid 1130645)
- Causeway over moat at Hatton Hall – Grade II (HA Uid 1130646)
 - Canal Bridge No 111williamsons Brige – Grade II (HA Uid 1130647)
 - Shippon 25m NW of Leadgate farmhouse – Grade II (HA Uid 1313273)
 - Higher Huxley Mill Mill Farmhouse – Grade II (HA Uid 1313274)
 - Greenlooms –Grade II (HA Uid 1330234)
 - Brereton Park Farmhouse – Grade II (HA Uid 1330235)
 - Hatton Hall – Grade II (HA Uid 1330236)
 - Sundial in front of Stapleford Hall – Grade II (HA Uid 1330272)
 - Garden wall and gateway at burton Hall – Grade II (HA Uid 1330273)
- Conservation Areas
 - Burton (date of designation: 25/07/1973)
 - Sheaf (date of designation: 31/08/1974)

- Scheduled Monuments
 - Hatton Hall Moated Site (HA Uid 1011787)
 - Foulk Stapleford Moated Site (HA Uid 1011790)
 - Lower Huxley Hall Moated Site (HA Uid 1011796)

Sites and Areas of Local Nature Conservation Value

These include Sites of Biological Importance (designated by Cheshire County Council) and Local Wildlife Sites (Chester District Nature Conservation Audit).

Landscape character

Natural England: NCA Profile 61, Shropshire, Cheshire and Staffordshire Plain (NE556)

This is a national system of identifying and characterising landscape. Most of the county of Cheshire falls within NCA 61; it encompasses an expanse of flat or gently undulating, lush, pastoral farmland, which is bounded by the Mersey to the north and Pennines to the east, with their urban and industrial development. To the west are the hills of the Welsh borders. A series of small sandstone ridges cut across the plain and are very prominent in this open landscape. The Mid-Cheshire Ridge has steep sides and woodland, often ancient semi-natural woodland, which is notably absent from the plain. For further information see

<http://publications.naturalengland.org.uk/publication/6076647514046464?category=587130>

Landscape Strategy for Cheshire West and Chester 2016: Landscape Character Type 9 Cheshire Plain West, and within

that, Landscape Character Area 9b: Hargrave, Hoofield and Beeston Plain

This is the borough-level landscape characterisation which sits beneath the national, broader scale one. It gives a finer grain of detail and describes the local character of our Area. The key characteristics and issues of Character Area 9b are given in section 5. For further information see

Part 1 (overall introduction) -

<http://consult.cheshirewestandchester.gov.uk/file/3910760>

Part 2 (information about the landscape types and character areas)-

<http://consult.cheshirewestandchester.gov.uk/file/3910762>

Public rights of way

There is an extensive network of PRowS with connection to the Sandstone Trail, see Plan 8.

Public open space

There is one designated open space in Bruen Stapleford, see Plan 10, and 2 undesignated ones in Hargrave, see Plan 8.

SITE SURVEY RESULTS: LANDSCAPE

Part of the results of the survey are shown on Plans 5 and 11. Other aspects are described below.

Created by farming

Plan 11 shows that farming remains the predominant land use and contributes greatly to the character of our Area. This is corroborated by the public consultation where 79% of respondents rated farming as very or extremely important, even though a small

percentage are employed in agriculture. Grassland predominates but there is a proportion of arable, especially in the centre of Hatton, which is not visible from most of the rest of the Area. Some fields shown as arable may be grassland, because they were surveyed shortly after they had been ploughed and sowed. Even the heavier clay soils can now be ploughed and arable occurs throughout the Area.

Open views

The landscape of the Area is very open giving short and long-distance views of open countryside throughout, as described in section **Error! Reference source not found.** The survey revealed there are numerous, extensive views; they are in at least one direction from every property, except Burton. Hence individual, 'key' views have not been plotted on the plans since it would be misleading to identify specific viewpoints.

Hedgerows

The majority of hedgerows in the Area comprise Hawthorn with mature Oak trees and are relatively modern, probably dating from enclosure in the 18 and 19th centuries. There is evidence that some hedgerows, especially those on parish boundaries, contain more woody species in a given length; for example Hazel, Dog Rose, Blackthorn, Ash and Willow. This is likely to indicate that they are centuries older (Ploughlands and Pastures). Hedgerow dating could be an area for further study as a community project.

Hedgerows are protected by the Hedgerow Regulations 1997, (see <https://www.gov.uk/countryside-hedgerows-regulation-and-management>).

Canal corridor

The Shropshire Union Canal (Chester branch) is a significant landscape feature running or abutting the southern boundary of Huxley and the east of Hatton, see Plan 5. The majority of the canal is at approximately the same elevation as the surrounding land and its boundaries are largely hedged. Only on the east of Huxley is the canal on an embankment, and this landform contributes to the existence of 2 Local Wildlife Sites; Brockholes and Nixon's Bridge meadow.

Brockholes is unusual because it has a different character to most of the Area. It is an area of wildflowers, scrub and riparian woodland around the canal crossing of the Gowy and a rock-cut sandstone spillway. The height of the canal embankment is emphasised by a group of mature Larch, unique in the Area, and thought to have been originally planted by the canal company to provide a source of stop-planks, since Larch timber is waterproof.

Ridge and furrow ('butts and reans')

Ridge and furrow remains in those fields which have been continuously managed as permanent pasture. 'Butts and reans' (locally) were caused by ploughing with a non-reversible plough, and can date from the medieval period. The 1947 RAF aerial survey showed a concentration in our Area (Images of Hargrave & Huxley, 1999). The Area was recognised as retaining relatively large amounts of ridge and furrow in 1979 (Ploughlands and Pastures, 1982).

Ridge and furrow is eroded by modern ploughing and thereby threatened by the improvement of grassland. Hence its extent has lessened with the advent of silage and use of highly-productive

modern grass varieties. Land which has always been grazed, usually due to heaviness of its clay soil, is ploughed and sown.

For example the ridge and furrow in section 5 in Huxley was S-shaped and had a wide distance between the furrows, indicating probably early (medieval) origin (Ploughlands and Pastures). It was ploughed up in spring 2014 and sown with a modern grass for silage.

The survey found ridge and furrow especially around Hatton Farm, the west side of Hargrave near the canal, and a couple of fields around Elm Tree Farm, Huxley. Further survey for a more detailed comparison between now and 1979/1947 would be worthwhile, to record this disappearing feature.

Traditional orchards

Orchards were a feature of most agricultural counties before modern fruit production and imports. Many homes were essentially self-sufficient; and for fruit this entailed planting a variety of fruit trees around houses. Cheshire's orchards have been studied (Orchards of Cheshire, 1995) and traditional orchards are recognised as 'biodiversity hotspots' but also a declining habitat (see <http://jncc.defra.gov.uk/page-5706>). Hence they have been designated as a UK Biodiversity Action Plan (BAP) Priority Habitat. Other than this they have no statutory protection.

The survey identified a number of orchards, with many houses having at least a couple of old fruit trees, see Plan 5. Huxley has a cluster of orchards compared to the rest of the Area. They more often contain large, old Apple and Damson trees, but there are some Plum and Pear, including the small Hazel Pear. At the landscape survey group most people did not know what varieties

they had. They may be common, or rarer ones specific to the North West, adapted to crop well in our less favourable climate. It is possible to have them identified, by the Brogdale Trust for example. Again this could be an area for further study and perhaps even community apple-pressing.

Wildflower meadows

2 fields of permanent pasture west of Hargrave (with ridge and furrow) were also recorded as wildflower meadows. This is unsurprising because they have been managed in a traditional way, and so with lower inputs of fertiliser have retained a more diverse sward with a range of broadleaved species as well as grasses. These are undesignated wildlife sites and survive due to the management of the landowner.

SITE SURVEY RESULTS: ENVIRONMENT

The survey was based on the principles of a Phase 1 habitat survey (Field manual for Phase 1 habitat survey - a technique for environmental audit, JNCC 2010), with the dominant habitats to be recorded on maps, and sightings of any species noted.

Predominant habitats

From the survey, the following habitats are present in the NDP Area (in approximate order of extent, largest first): improved grassland; hedgerows; mature trees; ponds; ditches; streams; river; canal; non-ancient broadleaved woodland; arable; semi-improved grassland; scrub. See Plans 5 and 11.

Rarer habitats and species

Black Poplar

This is Britain's rarest tree (WLP2, see above). It is found in unimproved river corridors and has therefore suffered from a decline in habitat. However the Gowy corridor is one of the few areas where small numbers remain. Two groups are designated of Local Nature Conservation Value, see above. There are also 2 individual trees, one at the Gowy bridge in Huxley. They have a distinctive 'craggy' appearance, black bark, and produce large amounts of seed in white fluff. Due to their rarity and association with our Area, the leaves of the Black Poplar were chosen as the logo for the NDP.

Unimproved grassland, Gowy

This is an unusual survival in an agricultural area where grassland has been greatly improved since the mid-20th century. It is probably due to being 'trapped' between the Shropshire Union Canal and the river Gowy, so that access for large machinery is difficult. Due to its rarity it is designated of Local Nature Conservation Value, see above. It is managed by seasonal grazing in the traditional way. It contains neutral and base-rich grassland, fen and spring-line flushes, swamp and patches of Alder carr (WLP2, see earlier).

Protected species

The above habitats support a number of statutorily protected species including Great Crested Newts (and Smooth); Bats especially Pipistrelle; European Brown Hare; Badger; Barn Owl and a range of other birds.

Whilst the survey did not generate specific species' locations, (and it is not advisable to publicise these), there was anecdotal evidence

of the above species at the Landscape survey meetings. Newts for example are not uncommon in gardens, cellars and even houses, because there are so many ponds and slow-moving ditches throughout the Area. The North West is a recognised stronghold for Great Crested Newts (see www.lancspartners.org/lbap/species_plans). The high number of ponds in our Area is due to the historic extraction of marl, clay with a high lime content that used to be spread on fields to improve fertility. Whilst a few ponds have been filled in and others are growing over, see Plan 5, many remain.

SITE SURVEY RESULTS: BUILT ENVIRONMENT

The majority of the character of the Area comes from the countryside which surrounds, pervades and defines our communities. However there is also the entirely man-made environment, albeit far less of it. This is our buildings, boundaries and other features. It refers to both their appearance as a whole and details, because the latter add interest, colour, texture and history.

A simple built environment survey was carried out in the more populated parts. Settlement in Hatton and Bruen Stapleford is even more dispersed than the rest of the Area, to the extent that the 'built environment' makes little visual impact. Burton is a largely Conservation Area and therefore already has an appraisal of its appearance and planning guidance on it.

The following features were therefore recorded by the parish representatives of Foulk Stapleford and Huxley. They recorded houses and the principal non-residential buildings –

- Walls: are these brick, render (and paint), or sandstone?
- Roof: slate, tiles (grey), or other?
- Boundary with the road: Hawthorn hedge, other hedge, or wall, fence or other?
- Orientation of building to the road: parallel, right angle to it, or other?

In 2011 the Office for National Statistics had 70 houses in the Parish of Foulk Stapleford
 We have counted 52 houses in Hargrave and Brereton Park and 2 non-residential buildings, and 16 in Greenlooms. Total = 68 houses
 Boundary survey not completed for 10 properties, therefore total 44

The features with the highest percentages are highlighted

No	ROAD	Walls			Roof			Boundary with road			Orientation to road		
		Brick	Render /Paint	Sand stone	Slates	Tiles (grey)	Other	Hedge Hawthorn	Hedge Other	Wall/Fence /Other	Parallel	90 degs	Other
	CHAPEL LANE	6	1	0	4	3	0	5	1	1	6	1	0
	CHURCH LANE	22.5	4.5	1	9	18	1	11.5	6.5	5	21	0	7
	OLD HALL LANE	8.5	3.5	0	11	1	0	4.5	0.5	2	5	0	7
	COW LANE	2	1	0	1	2	0	3	0	0	1	2	0
	BRERETON PARK	4	0	0	4	0	0	4	0	0	1	1	2
54	TOTAL NUMBERS	43	10	1	29	24	1	28	8	8	34	4	16
	As % of total	80%	19%	2%	54%	44%	2%	64%	18%	18%	63%	7%	30%

Greenlooms

In 2011 the Office for National Statistics had 70 houses in the Parish of Foulk Stapleford
 We have counted 52 houses in Hargrave and Brereton Park (and 2 non-residential buildings), and 16 in Greenlooms. Total = 68 houses
 Boundary survey not completed for Rycroft Lane, therefore total 13 not 16

The features with the highest percentages are highlighted

No	ROAD	Walls			Roof			Boundary with road			Orientation to road		
		Brick	Render /Paint	Sand stone	Slates	Tiles (grey)	Other	Hedge Hawthorn	Hedge Other	Wall/Fence /Other	Parallel	90 degs	Other
	MARTINS LANE	3	2	0	4	1	0	4	1	0	3	1	1
	RYECROFT LANE	2	0	0	2	0	0	0	0	0	0	0	2
	GUY LANE	8	0.5	0.5	9	0	0	3	2	3	7	1	1
16	TOTAL NUMBERS	13	2.5	0.5	15	1	0	7	3	3	10	2	4
	As % of total	81%	16%	3%	94%	6%	0%	54%	23%	23%	68%	11%	21%

Hargrave

Huxley

ONS 2011 Census data uses Parish boundaries, therefore used here for comparison. ONS has 98 houses in Parish
 Those in red are additional non-residential buildings or new since 2011 (7 no.). Total = 100 houses

The features with the highest percentages are highlighted

No	ROAD House name	Walls			Roof			Boundary with road			Orientation to road		
		Brick	Render /Paint	Sand stone	Slates	Tiles (grey)	Other	Hedge Hawthorn	Hedge Other	Wall/Fence /Other	Parallel	90 degs	Other
	CHURCH LANE	24.5	1.5	0	23	2	1	13	6.5	6.5	25	0	1
	HOOFIELD LANE	13	6	0	18	1	0	13.5	0	5.5	13	3	3
	HUXLEY LANE	19	14	0	27	1	5	20	2	11	26	1	6
	LEADGATE LANE	5	2	0	6	0	1	1	0	6	6	0	1
	LONG LANE, HARGRAVE	4.5	0.5	0	2	1	2	2	1	2	5	0	0
	MILL LANE, HARGRAVE	5.5	5.5	0	8	2	1	11	0	0	6	0	5
	RED LANE, HUXLEY	5	1	0	4	2	0	5	0	1	0	0	6
107	TOTAL NUMBERS	76.5	30.5	0	88	9	10	65.5	9.5	32	81	4	22
	As % of total	71%	29%	0%	82%	8%	9%	61%	9%	30%	76%	4%	21%

Conclusions

The results show that the following features are predominant

- Foulk Stapleford – Greenlooms: brick walls; slate roofs; Hawthorn hedge boundaries; buildings parallel to the road.
- Foulk Stapleford – Hargrave and Brereton Park: brick walls; slate and tile roofs; Hawthorn and other hedge boundaries; buildings parallel to the road.
- Huxley: brick walls; slate roofs; Hawthorn hedge boundaries; buildings parallel to the road.

Burton

The Conservation Area description (1973 and 1996) include the following –

‘Burton is a compact, rural settlement...its buildings form a most attractive group. It derives its character from the irregular grouping of traditional brick and slate-roofed farm buildings and cottages on either side of the main street...the Hall and green in front of it form a focal point.’

‘Burton lies well in its rural setting approached along country lanes and deriving its character from groups of working farms. Hedgerows run right through the centre of the village emphasising the rural setting and creating a pleasant environment. The village is quite enclosed, due to the combination of built form and trees there are limited views out of the village.’

‘There is very limited scope for small scale infill within the main built body of the village. No development should be allowed to take place on the periphery. Ideally any necessary new

dwellings should be accommodated by conversion of redundant agricultural buildings.’

Light pollution

Volunteers checked for the presence of local authority-maintained street lighting throughout the Area. The results and conclusions are described in section 5.1.

B.1 Example Survey Sheet

CENTRAL GOWY (SOUTH) NEIGHBOURHOOD PLAN
LOCAL CHARACTER, LANDSCAPE AND ENVIRONMENT - SURVEY CHECKLIST

Survey area	Names of surveyor(s)	Date
Red Lane - Higher Hunsley Hall, Craggs, Oak Barn, Ithaca West up to canal boundary	Sholgate, Lorraine, Kay, Leoley	4 th March 2014

1. Desktop survey – before you go out

ANY OFFICIAL CWAC DESIGNATIONS IN THIS AREA?	NAME OF SITE
Local Wildlife Site	N/A
Archaeological Site	N/A
Listed Buildings or Conservation Area	N/A
Green Belt (Hatton)	
Other	

2. Landscape features – write letters on your map to mark location and take 'typical' photographs. Note on map where photographs taken.

FEATURE	RECORD AS
Fields – horse paddock, grass, crops, other (note what) <i>crops Field 1, 2, 3, 4, 5, 6, 7, 8</i>	Pad (G) C O
Field boundaries – hedge, fence, other (note what) (do not record ditches, gates, hunt jumps) <i>Post and rail field 3 + wire 1/2 + Hawthorn</i>	(H) (E) O
Water – river, stream or pond <i>Pond fields 1, 3, 5 + 7 + 1/2 3/5 7/8</i>	R S (P)
Woodland <i>Edge of field 2 + 8</i>	(W)
CULTURAL FEATURES Ridge and Furrow <i>Optional: Species-rich hedgerow – not just Hawthorn with Oaks</i> Other (describe in notes)	R&F Note next to H
CHARACTER in your words <i>Fairly flat grass fields with ponds + occasional hollows.</i>	
NOTES <i>Field 7 - 2 hollows</i>	<i>Large open-sided barn in field 3.</i>
Built environment – the extent of the village – houses, gardens and other buildings	Draw a line
Farmhouses and farm buildings (working farms only)	FH FB
Houses (do not record garages, sheds, small buildings near houses separately) Other buildings e.g. stables (note what) Masts and power lines <i>Field 2 + 5</i>	Ho OB M (L)
Important views within and from the village <i>Beeton + Beck Farm Castles plus village. Far reaching views</i>	Arrow from point

Local Character, Landscape and Environment Survey, v1.0 10/2/14

CENTRAL GOWY (SOUTH) NEIGHBOURHOOD PLAN
LOCAL CHARACTER, LANDSCAPE AND ENVIRONMENT - SURVEY CHECKLIST

Survey area	Page 2
Red Lane - Higher Hunsley Hall, Craggs, Oak Barn, Ithaca fields to West towards canal	

3. Built environment detail – notes in boxes and take 'typical' photographs. Note where taken.

FEATURE	NOTE HERE
Are the buildings dispersed or clustered?	Clustered at top of street original drive to Higher Hunsley Hall.
What is their density, scale, grain, 'feel'?	All appropriate scale, facing roads.
What are the design and materials of the houses? (Tick)	All Most Few None
Brick and slate roof	✓
Render and slate roof	✓
Other	Painted brick + slate roof - HHH
What are the types of boundaries with highway? (Tick)	All Most Few None
Hawthorn hedge	✓
Other hedge	✓
Brick wall or other wall	✓
Fence	✓ - small areas
CULTURAL FEATURES Orchards, 2 or more old fruit trees in/near gardens Other (describe in notes)	HHH = orchard Ithaca = Orch on map Oak Barn's small new orchards
CHARACTER OF BUILT AREA in your words	Character long cobble drive to HHH + old brick barn conversions More modern "Annexe" to Higher Hunsley Hall.
NOTES <i>Cluster, large Row Linn/Moat's Field 1 Pleached Hornbeam hedge along drive to HHH + sundapp - also young flowers</i>	

4. Natural environment – write on your map and take 'typical' photographs. Note where taken.

FEATURE	RECORD AS
Wildlife sites – if you know any (not the official ones)	Note what on map
Habitats – e.g. areas of scrub, wildflowers (do not repeat items in 2)	Note what on map
Notable species of animals and plants – you see when surveying or know are in that area	Note here <i>Pond in field 3 - Coots, Moorhens, ducks + many birds</i>
Public Rights of Way – footpaths and bridleways <i>Optional: Note stiles, gates and bridges on map</i>	Tick route on map <i>None</i>
Roads, Railway, Canal, farm tracks (not Rights of Way)	Note on map ✓
Brownfield (previously developed) sites	BF
NOTES	

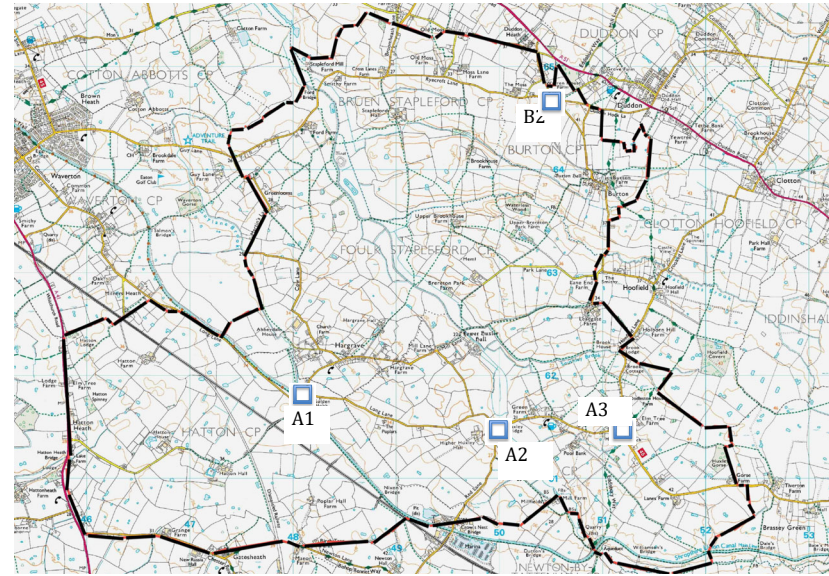
Local Character, Landscape and Environment Survey, v1.0 10/2/14

C. Traffic Survey Data

It was recognised from the start that there are two main corridors used by traffic passing through the area.

The main route can be described as being along Huxley Lane and Long Lane for Tarporley/Chester traffic and along Huxley Lane and Red Lane for traffic to Tattenhall. Traffic along this route (designated route A) can be measured by recording turning movements at three junctions:

- A1: being the junction at Golden Nook Bridge
- A2: being the junction at the bottom of Huxley Lane and linking with Long Lane and Red Lane.
- A3: being the junction at the top of Huxley Lane and linking with Church Lane and Hoofield Lane.



The other well used route (route B) is the link between the A51 at Duddon and the A41 at Waverton via Guy Lane. This is a popular link for traffic wishing to avoid Chester's Vicar's Cross Junction with the city's by-pass. Traffic along this route could be measured by recording the movements at the staggered crossroads north of Burton (junction B2).

On the advice of CWaC's Highways Department the requirements for the survey were:

1. Complete the survey on a neutral day (Tuesday or Thursday preferred)
2. Complete the survey over a 12-hour period between 07.00 and 19.00 hours.
3. Complete counts over 15-minute blocks or hourly.
4. Avoid school holidays

5. Ensure adequate health and safety features are taken
6. Classify vehicles.

Each junction was represented in a recording form with each turning movement identified and with the required categories of traffic individually counted. In accordance with CWaC Highways Department's wishes the traffic was separated into:

- Cars
- Light Goods Vans (LGVs)
- Goods Vehicles (Rigid bodied lorries and tractors)
- Articulated Lorries (Artics) - including lorries with trailers
- Buses
- Motorcycles
- Cycles

A typical recording form is illustrated below:

GOWY CENTRAL (South) NEIGHBOURHOOD PLAN
HOURLY TRAFFIC COUNT

Junction **A3** HUXLEY LANE (TOP)

Date: _____

Time: _____ to _____

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	
Goods		Goods	
Artic		Artic	
Bus		Bus	
M/C		M/C	
Cycle		Cycle	

Cars		Cars	
LGVs		LGVs	

The traffic survey was carried out on Thursday 12th June 2014. Volunteers recruited from the local community were split into teams of two and allocated turns of duty counting the movements at each nominated junction over a 12-hour period between 07.00 hrs. and 19.00 hrs. The day was split into whole hours but with the am peak being measured in 15-minute intervals for the period 07.00 to 09.00 and the pm peak being taken from 16.00 to 19.00.

The recorded information was collated into a single spreadsheet for analysis. Correction factors were applied in accordance with Highways Department's directives. The recorded counts at each junction are given in tables 16.1 to 16.4 and the resulting hourly flows along the various links in table 16.5

The 12-hour counts were converted to 16-hour numbers by applying a multiplier of 1.15 and the June factor of 345 applied in order to determine the Average Annual Daily Traffic over a 365-day year.

The total recorded figures for each category of traffic using the lanes within the area was:

Cars	14,262	(approximately 75%)
LGVs	3,145	(approximately 17%)
Goods Vehicles	586	(approximately 3%)
Artics	26	(approximately 0%)
Buses	130	(approximately 1%)
Motorcycles	80	(approximately 0%)
Cycles	806	(approximately 4%)

As can be immediately appreciated, private cars form the vast majority of the traffic. This is unsurprising and accords with the importance given to the car as the principal mode of transport for all residents. It should also be noted that, at weekends, the proportion of cyclists could be expected to be hugely greater than 4%.

The flows along each of the lanes served by the junctions were determined from the traffic counts and are given in table 16.5 below. They are also illustrated in Figure 2.

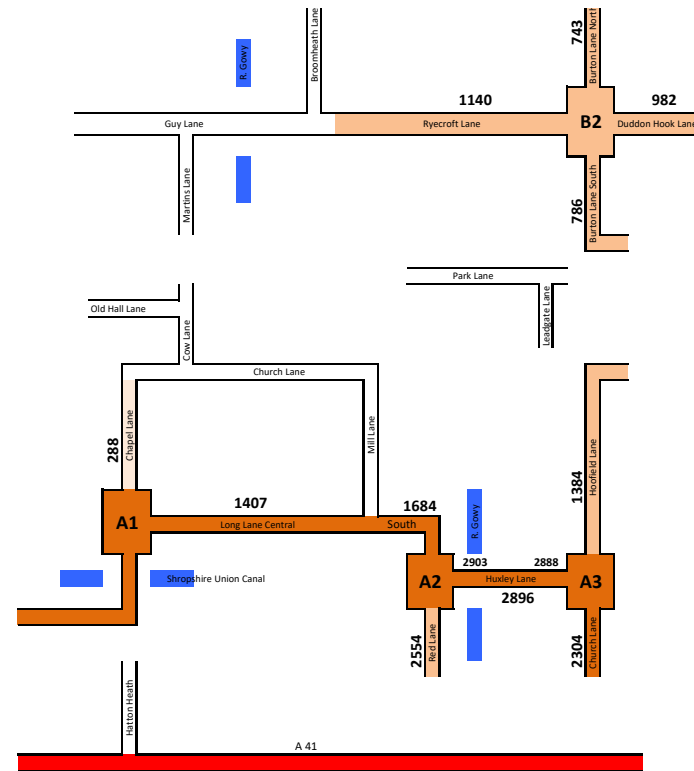


Figure 2 AADT figures

The information recorded also permits traffic flows to be assessed throughout the working day. This is illustrated in Figure 3 below.

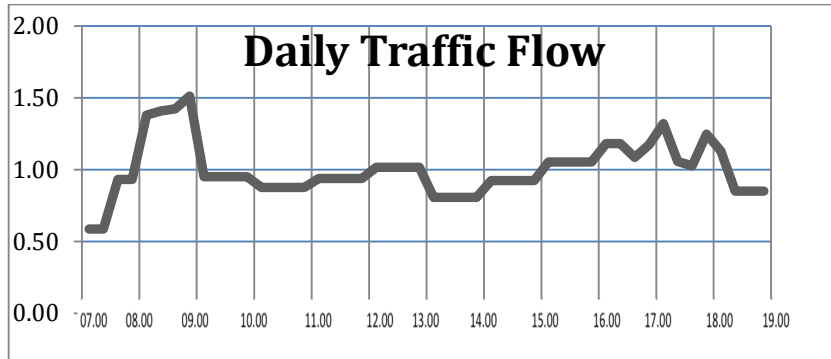


Figure 3 Daily Traffic Flow

As can be seen, there is a sharp am peak between 08.00 and 09.00 when traffic flows rise to approximately 1.5 times the average rate. The pm peak is much more attenuated (probably due to the afternoon school run) and lasts from 15.00 to approximately 18.15 and only peaks to approximately 1.3 times the average.

Table 1 Junction A1 record

Long Lane Central to Long Lane North												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	59	95	41	38	26	28	29	28	45	49	38	35
LGVs	2	6	13	9	9	5	4	3	6	9	9	6
Goods	0	0	2	4	1	3	0	1	1	1	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	2	0	0	0	0	0	0	2	0	0	0
M/C	0	0	0	0	1	0	0	1	0	1	2	0
Cycles	1	0	2	1	3	4	4	4	3	4	3	6
Long Lane Central to Chapel Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	0	1	1	2	0	0	0	1	1	1	0	0
LGVs	1	1	1	0	2	1	1	0	0	0	0	0
Goods	0	0	0	0	0	0	0	2	0	0	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	0	0	0	0	0	0
M/C	0	0	0	0	0	0	0	0	0	0	0	0
Cycles	0	0	0	1	0	0	0	0	0	0	0	0
Long Lane North to Chapel Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	2	5	5	4	9	7	12	4	14	7	11	13
LGVs	1	2	2	0	4	2	0	0	1	1	2	1
Goods	0	0	1	0	0	0	0	0	0	0	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	0	0	1	0	0	1	1	2	0	1	1
M/C	0	1	0	0	0	0	0	0	0	0	0	0
Cycles	0	1	0	0	0	0	1	0	0	0	1	1
Long Lane North to Long Lane Central												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	26	42	23	21	32	41	30	31	41	53	75	47
LGVs	5	8	8	10	5	8	7	7	6	5	6	6
Goods	1	0	0	0	2	2	1	4	2	1	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	1	0	0	0	0	0	0	1	1	0	0
M/C	0	2	0	0	0	1	0	0	1	0	0	2
Cycles	1	8	1	6	3	3	0	2	3	7	4	11

Chapel Lane to Long Lane Central												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	1	0	0	0	0	0	3	1	1	0	0	2
LGVs	0	1	0	0	0	0	0	0	0	0	0	0
Goods	0	0	0	1	0	0	0	0	0	0	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	2	0	0	0	0	0	0	0	0	0	0
M/C	0	0	0	0	0	0	0	0	0	0	0	0
Cycles	0	0	2	0	0	0	0	0	0	0	0	0
Chapel Lane to Long Lane North												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	13	15	11	8	7	3	9	3	6	7	4	3
LGVs	0	2	0	0	1	3	1	2	2	2	1	1
Goods	0	0	0	0	0	0	0	0	0	0	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	0	1	0	1	0	1	0	1	1	0	0
M/C	0	0	0	0	0	0	0	0	0	0	0	0
Cycles	0	0	1	0	1	1	0	0	0	0	0	0

Table 2 Junction A2 record

Huxley Lane to Red Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	38	61	52	42	57	56	34	51	57	51	69	55
LGVs	9	27	32	16	21	24	15	10	13	16	5	8
Goods	3	8	4	9	5	3	3	1	4	3	0	1
Artics	0	0	0	1	0	0	0	0	0	0	0	1
Bus	0	1	0	0	0	0	0	0	0	0	0	0
M/C	1	0	0	0	0	0	0	1	0	0	0	0
Cycles	0	1	1	2	10	1	0	3	4	3	5	1
Huxley Lane to Long Lane South												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	51	88	34	27	14	25	13	22	39	34	28	26
LGVs	2	1	2	6	4	8	7	6	11	4	4	3
Goods	0	1	0	2	0	1	0	1	1	1	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	1	0	0	0	0	0	0	1	0	0	0
M/C	0	0	0	0	0	0	0	1	0	0	2	0
Cycles	1	0	1	1	1	1	0	2	2	1	1	0
Red Lane to Long Lane South												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	9	18	13	22	17	16	19	13	18	26	21	19
LGVs	2	8	6	9	2	7	3	1	3	7	3	2
Goods	0	0	1	2	1	2	0	1	0	1	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	2	1	0	1	0	1	0	1	1	0	0
M/C	0	0	0	0	0	0	0	0	0	1	0	0
Cycles	0	1	2	2	5	2	5	6	5	4	2	9
Red Lane to Huxley Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	39	70	40	36	42	46	40	57	57	63	66	34
LGVs	12	26	13	13	16	13	22	16	14	17	10	7
Goods	3	2	4	5	6	5	4	7	3	1	1	4
Artics	0	0	0	1	0	0	0	0	1	0	0	0
Bus	0	0	0	0	0	0	0	1	0	2	1	1
M/C	0	0	0	0	1	0	0	0	0	0	0	0
Cycles	2	0	2	1	0	2	1	0	0	2	5	0

Long Lane South to Huxley Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	22	37	21	14	23	29	20	28	30	43	66	43
LGVs	2	5	3	5	2	3	3	6	2	5	2	3
Goods	0	1	2	0	1	1	1	3	2	0	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	0	0	0	1	0	0
M/C	0	3	0	0	0	1	0	0	0	0	0	1
Cycles	0	1	0	2	3	0	2	0	0	5	0	6
Long Lane South to Red Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	6	13	19	12	16	16	22	13	14	21	16	19
LGVs	3	5	5	3	5	8	3	1	2	5	2	2
Goods	0	0	0	0	2	3	1	3	0	0	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	1	0	0	1	0	1	1	1	1	1	0
M/C	0	0	0	0	0	0	0	0	1	0	0	1
Cycles	1	8	1	6	1	4	0	3	1	5	6	6

Table 3 Junction A3 record

Hoofield Lane to Church Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	6	11	12	6	6	12	9	15	20	16	9	13
LGVs	1	4	2	2	1	1	1	5	3	5	2	3
Goods	0	3	0	0	1	0	1	3	0	0	0	0
Artics	0	0	0	1	0	0	0	0	0	0	0	0
Bus	0	1	0	0	0	0	0	0	0	0	0	0
M/C	0	0	0	0	0	0	0	0	1	0	0	0
Cycles	0	0	0	1	3	2	0	0	0	1	2	0
Hoofield Lane to Huxley Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	20	35	21	25	37	35	28	31	31	28	17	24
LGVs	3	12	9	11	12	5	3	11	8	7	1	4
Goods	2	1	1	4	1	1	1	1	3	0	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	0	0	0	0	0	0
M/C	0	0	0	0	0	0	0	2	0	0	0	0
Cycles	0	0	0	0	9	1	1	1	1	1	3	1
Church Lane to Huxley Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	73	114	64	37	39	46	28	41	79	57	77	58
LGVs	7	13	8	8	15	10	4	7	8	11	9	8
Goods	1	2	1	6	2	3	2	0	2	3	0	0
Artics	0	0	0	1	0	0	0	0	0	0	0	1
Bus	0	2	1	1	0	0	0	0	1	0	0	0
M/C	1	0	0	0	0	0	0	0	0	0	1	0
Cycles	1	0	2	3	2	1	0	2	4	1	3	1
Church Lane to Hoofield Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	3	13	7	14	12	9	10	14	16	14	7	9
LGVs	1	3	0	1	1	1	2	2	14	5	2	0
Goods	0	1	0	1	0	1	2	1	1	0	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	1	0	1	0	0	0
M/C	0	0	0	0	0	0	0	0	0	0	0	0
Cycles	0	1	0	0	0	2	2	2	1	1	1	4

Huxley Lane to Hoofield Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	18	38	18	23	32	20	30	32	24	35	37	13
LGVs	4	5	8	7	10	11	6	21	8	7	6	4
Goods	1	1	0	1	1	3	4	2	1	2	0	1
Artics	0	0	0	1	0	0	0	0	1	0	0	0
Bus	0	0	0	0	0	0	0	0	0	0	0	0
M/C	0	1	0	0	0	1	0	0	0	0	0	0
Cycles	1	0	1	0	0	1	1	0	0	3	3	4
Huxley Lane to Church Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	40	102	39	36	37	62	37	57	61	77	77	56
LGVs	11	7	11	11	14	15	13	14	12	15	21	10
Goods	1	0	2	2	1	0	1	3	4	1	0	2
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	1	0	0	0	0	0	0	0	3	1	1
M/C	0	1	0	0	0	0	0	0	0	1	0	1
Cycles	0	0	1	3	2	2	2	1	2	2	2	2

Table 4 Junction B2 record

Ryecroft Lane to Burton Lane North												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	0	1	1	1	6	3	1	1	7	4	4	0
LGVs	0	0	0	0	0	0	0	0	0	0	2	0
Goods	0	0	0	0	0	0	0	0	0	0	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	0	0	0	0	0	0
M/C	0	0	0	0	0	0	0	0	0	0	0	0
Cycles	0	0	1	0	0	0	0	0	0	0	0	1
Ryecroft Lane to Duddon Hook Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	16	41	15	10	27	16	22	19	20	41	44	38
LGVs	2	1	2	4	8	7	4	4	4	6	8	7
Goods	1	0	3	0	0	0	1	0	1	0	2	0
Artics	0	0	0	0	0	0	0	0	0	0	1	0
Bus	0	1	0	0	0	0	0	0	0	0	0	0
M/C	0	1	0	0	0	0	0	0	0	0	0	0
Cycles	0	1	0	2	3	1	1	2	0	0	1	3
Ryecroft Lane to Burton Lane South												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	002 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	1	1	3	2	1	1	3	4	14	1	6	5
LGVs	0	0	2	0	4	1	2	0	2	2	1	0
Goods	0	1	1	0	0	0	1	1	0	0	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	0	0	0	0	0	0
M/C	0	0	1	0	0	0	0	0	1	0	0	0
Cycles	0	0	0	1	2	1	2	0	2	0	1	1
Burton Lane North to Duddon Hook Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	1	0	0	1	1	2	3	0	1	3	2	2
LGVs	0	0	1	0	2	2	1	0	0	0	1	0
Goods	0	0	1	1	0	0	0	0	0	0	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	0	0	0	0	0	0
M/C	0	0	0	0	0	0	0	0	0	0	0	0
Cycles	0	0	0	0	0	0	0	1	0	0	0	1

Burton Lane North to Burton Lane South												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	002 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	11	7	19	21	23	24	18	26	16	19	16	21
LGVs	3	5	6	4	4	7	3	8	4	11	0	5
Goods	1	2	0	1	0	1	1	3	1	0	0	1
Artics	0	0	0	1	0	0	0	0	0	0	0	0
Bus	0	1	0	0	1	0	0	0	0	0	0	0
M/C	0	0	0	0	0	0	0	0	0	0	0	0
Cycles	0	0	0	1	0	0	0	0	0	0	0	0
Burton Lane North to Ryecroft Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	002 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	2	0	0	4	2	2	0	7	0	8	6	1
LGVs	0	0	1	0	1	0	1	0	0	2	1	1
Goods	0	1	0	0	0	0	1	0	0	0	0	0
Artics	0	0	0	1	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	0	0	0	0	0	0
M/C	0	0	0	0	0	0	0	0	0	0	0	0
Cycles	0	0	0	0	0	0	0	0	0	0	0	0
Duddon Hook Lane to Burton Lane South												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	0	1	0	0	0	0	0	0	0	1	0	0
LGVs	0	0	0	0	0	0	0	0	0	0	0	0
Goods	0	0	0	0	0	0	0	0	0	0	0	0
Artics	0	0	0	0	0	0	0	0	0	0	0	0
Bus	0	0	0	0	0	0	0	0	0	0	0	0
M/C	0	0	0	0	0	0	0	0	0	0	0	0
Cycles	0	0	0	0	0	0	0	0	0	0	0	0
Duddon Hook Lane to Ryecroft Lane												
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07
Cars	30	68	25	20	17	21	14	23	28	40	45	26
LGVs	9	7	9	3	5	7	1	4	5	7	3	1
Goods	0	1	3	0	0	0	0	0	2	1	0	0
Artics	0	0	0	0	0	0	0	0	0	1	0	0
Bus	0	1	0	0	1	0	0	0	0	0	0	0
M/C	0	0	0	0	0	0	0	0	0	0	0	1
Cycles	0	1	0	5	0	2	1	0	0	0	2	1

Table 5 Hourly Traffic Flows along the Lanes

Conversion factors:

June factor (/365) = 345

12 hour to 16 hour factor = 1.15

													AADT		
Ryecroft Lane	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07			
Cars	51	113	48	41	56	45	43	60	71	100	108	73	809		
LGVs	12	10	17	7	19	16	9	12	11	19	16	10	158		
Goods	1	3	8	0	0	0	4	2	4	2	2	0	26		
Artics	0	0	0	1	0	0	0	0	0	1	1	0	3		
Bus	0	2	0	0	1	0	0	1	0	0	0	0	4		
M/C	0	1	1	0	0	0	0	0	1	0	0	1	4		
Cycles	0	3	1	8	5	6	4	4	2	0	4	8	45		
													total	1049	1140
Burton Lane North	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07			
Cars	20	27	37	42	46	47	44	55	48	52	41	40	499		
LGVs	10	10	12	8	12	12	11	15	16	16	10	8	140		
Goods	2	4	1	3	0	4	6	3	3	1	1	1	29		
Artics	0	0	0	2	0	0	0	0	0	0	0	0	2		
Bus	0	1	0	0	1	0	0	0	1	0	0	0	3		
M/C	0	0	0	0	0	0	0	0	0	0	0	0	0		
Cycles	0	0	1	1	3	0	1	1	0	0	2	2	11		
													total	684	743
Duddon Hook Lane	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07			
Cars	49	112	42	32	49	39	45	45	52	88	92	67	712		
LGVs	13	9	13	7	16	16	7	8	10	15	13	8	135		
Goods	1	1	7	1	0	0	1	0	3	1	2	0	17		
Artics	0	0	0	0	0	0	0	0	0	1	1	0	2		
Bus	0	2	0	0	1	0	0	0	0	0	0	0	3		
M/C	0	1	0	0	0	0	0	0	0	0	0	1	2		
Cycles	0	2	0	7	6	3	2	3	0	0	4	5	32		
													total	903	982

Burton Lane South															
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07			
Cars	21	31	47	44	40	43	43	57	53	45	37	47		508	
LGVs	12	11	14	8	13	12	11	19	17	22	7	8		154	
Goods	2	4	2	2	0	4	7	5	4	2	1	1		34	
Artics	0	0	0	1	0	0	0	0	0	0	0	0		1	
Bus	0	1	0	0	1	0	0	1	1	0	0	0		4	
M/C	0	0	1	0	0	0	0	0	1	0	0	0		2	
Cycles	0	1	0	2	2	3	3	2	2	0	2	3		20	
													total	723	786
Hoofield Lane															
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07			
Cars	47	97	58	68	87	76	77	92	91	93	70	59		915	
LGVs	9	24	19	21	24	18	12	39	33	24	11	11		245	
Goods	3	6	1	6	3	5	8	7	5	2	0	1		47	
Artics	0	0	0	2	0	0	0	0	1	0	0	0		3	
Bus	0	1	0	0	0	0	1	0	1	0	0	0		3	
M/C	0	1	0	0	0	1	0	2	1	0	0	0		5	
Cycles	1	1	1	1	12	6	4	3	2	6	9	9		55	
													total	1273	1384
Church Lane															
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07			
Cars	122	240	122	93	94	129	84	127	176	164	170	136		1657	
LGVs	20	27	21	22	31	27	20	28	37	36	34	21		324	
Goods	2	6	3	9	4	4	6	7	7	4	0	2		54	
Artics	0	0	0	2	0	0	0	0	0	0	0	1		3	
Bus	0	4	1	1	0	0	1	0	2	3	1	1		14	
M/C	1	1	0	0	0	0	0	0	1	1	1	1		6	
Cycles	1	1	3	7	7	7	4	5	7	5	8	7		62	
													total	2120	2304

Huxley Lane (top)															
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07			
Cars	151	289	142	121	145	163	123	161	195	197	208	151		2046	
LGVs	25	37	36	37	51	41	26	53	36	40	37	26		445	
Goods	5	4	4	13	5	7	8	6	10	6	0	3		71	
Artics	0	0	0	2	0	0	0	0	1	0	0	1		4	
Bus	0	3	1	1	0	0	0	0	1	3	1	1		11	
M/C	1	2	0	0	0	1	0	2	0	1	1	1		9	
Cycles	2	0	4	6	13	5	4	4	7	7	11	8		71	
													total	2657	2888
Huxley Lane (bottom)															
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07			
Cars	150	256	147	119	136	156	107	158	183	191	229	158		1990	
LGVs	25	59	50	40	43	48	47	38	40	42	21	21		474	
Goods	6	12	10	16	12	10	8	12	10	5	1	5		107	
Artics	0	0	0	2	0	0	0	0	1	0	0	1		4	
Bus	0	2	0	0	0	0	0	1	1	3	1	1		9	
M/C	1	3	0	0	1	1	0	2	0	0	2	1		11	
Cycles	3	2	4	6	14	4	3	5	6	11	11	7		76	
													total	2671	2903
Red Lane															
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07			
Cars	92	162	124	112	132	134	115	134	146	161	172	127		1611	
LGVs	26	66	56	41	44	52	43	28	32	45	20	19		472	
Goods	6	10	9	16	14	13	8	12	7	5	1	5		106	
Artics	0	0	0	2	0	0	0	0	1	0	0	1		4	
Bus	0	4	1	0	2	0	2	2	2	4	2	1		20	
M/C	1	0	0	0	1	0	0	1	1	1	0	1		6	
Cycles	3	10	6	11	16	9	6	12	10	14	18	16		131	
													total	2350	2554

Long Lane South															
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07			
Cars	88	156	87	75	70	86	74	76	101	124	131	107		1175	
LGVs	9	19	16	23	13	26	16	14	18	21	11	10		196	
Goods	0	2	3	4	4	7	2	8	3	2	0	0		35	
Artics	0	0	0	0	0	0	0	0	0	0	0	0		0	
Bus	0	4	1	0	2	0	2	1	3	3	1	0		17	
M/C	0	3	0	0	0	1	0	1	1	1	2	2		11	
Cycles	2	10	4	11	10	7	7	11	8	15	9	21		115	
													total	1549	1684
Long Lane Central															
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07			
Cars	86	138	65	61	58	69	62	61	88	103	113	84		988	
LGVs	8	16	22	19	16	14	12	10	12	14	15	12		170	
Goods	1	0	2	5	3	5	1	7	3	2	0	0		29	
Artics	0	0	0	0	0	0	0	0	0	0	0	0		0	
Bus	0	5	0	0	0	0	0	0	3	1	0	0		9	
M/C	0	2	0	0	1	1	0	1	1	1	2	2		11	
Cycles	2	8	5	8	6	7	4	6	6	11	7	17		87	
													total	1294	1407
Long lane North															
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07			
Cars	100	157	80	71	74	79	80	66	106	116	128	98		1155	
LGVs	8	18	23	19	19	18	12	12	15	17	18	14		193	
Goods	1	0	3	4	3	5	1	5	3	2	0	0		27	
Artics	0	0	0	0	0	0	0	0	0	0	0	0		0	
Bus	0	3	1	1	1	0	2	1	6	2	1	1		19	
M/C	0	3	0	0	1	1	0	1	1	1	2	2		12	
Cycles	2	9	4	7	7	8	5	6	6	11	8	18		91	
													total	1497	1627

Chapel Lane																		
	07 to 08	08 to 09	09 to 10	10 to 11	11 to 12	12 to 01	01 to 02	02 to 03	03 to 04	04 to 05	05 to 06	06 to 07						
Cars	16	21	17	14	16	10	24	9	22	15	15	18				197		
LGVs	2	6	3	0	7	6	2	2	3	3	3	2				39		
Goods	0	0	1	1	0	0	0	2	0	0	0	0				4		
Artics	0	0	0	0	0	0	0	0	0	0	0	0				0		
Bus	0	2	1	1	1	0	2	1	3	1	1	1				14		
M/C	0	1	0	0	0	0	0	0	0	0	0	0				1		
Cycles	0	1	3	1	1	1	1	0	0	0	1	1				10		
																total	265	288