

TRAFFIC, TRANSPORT & PEDESTRIAN SAFETY ISSUES IN HOLMES CHAPEL

A report by the Traffic & Transport Working Group

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PART 1

1. INTRODUCTION

This report has been produced by a Working Group comprising of volunteers from the community chaired by a Parish Councillor. The Working Group reports to the Strategic Planning Sub-Committee (SPSC), which in turn is responsible to the Strategy & Finance Committee of the Parish Council.

The remit of the SPSC is to consider a range of issues identified by the production of the Neighbourhood Plan (NP) and to take a strategic view of potential developments up to and beyond 2030 when the current NP will expire.

This Working Group has been tasked to consider the traffic and transport issues affecting the village and make recommendations, including:

- traffic volumes and congestion
- speed of traffic
- HGV's & abnormal load routes
- potential impact of planned new road schemes and completion of the M6 Smart Motorway project
- local transport plan and strategic road planning
- public transport facilities
- road safety and road traffic accident levels
- safe cycling routes
- car parking

- air quality
- footways and pedestrian safety

Although part of a wider piece of work by the SPTG on the future of the village, entitled ‘Holmes Chapel Beyond 2030’, this report was issued for community consultation as an independent document because many of the traffic and transport issues are current and require attention now.

To establish the views of the community, a traffic issues survey was commissioned between July and September 2018. The summary results from this survey are shown in each relevant section.

Part 2 of the report deals with specific “accident risk” locations with the prime focus on pedestrian safety.

2. BACKGROUND

Previous initiatives taken by the Parish Council and others during the past decade and more have highlighted residents’ concerns about traffic volumes, congestion, pedestrian safety, cycling routes and the need for improvements to be made. There is clear evidence of frustration, with residents frequently complaining about both the problems and the continuing lack of action in addressing them.

A report produced by Cheshire County Council in 1969 recognised these issues then and proposed measures to alleviate them. Although planned, they were never implemented, leaving the village with an infrastructure that is woefully inadequate for the much enlarged community of today.

Although limited improvement has been achieved following a weight limit regulation, introduced to restrict HGV traffic on two roads, the extent of recent housing development only serves to highlight the inadequacy of the current road system. [See Section 8]

Holmes Chapel has a history of traffic congestion, dating back to before the M6 motorway was constructed, when the A50 through the village would suffer frequent traffic jams. The completion of the M6 did deliver relief for the village in terms of north – south traffic, but brought new east – west traffic flows accessing nearby Junction 18.

Growth of housing during the 1970s to 90s brought new sources of traffic flows generated by both local and commuting activity. A further driver of traffic growth has been HGVs using the M6 and accessing new commercial and distribution centres in the surrounding area.

In terms of road infrastructure, Holmes Chapel suffers from having several key pinch points, together with main roads passing through residential areas, creating noise and disruption for residents. [See Section 3.3]

Air quality issues are also of concern, particularly when traffic becomes slow moving as a result of traffic volumes and the inadequate roads. [See Section 7]

Pedestrians are not well supported either, with many narrow footways reflecting its small village heritage. Although some progress has been made in recent years, there are still several points where safe crossing

points are needed. Similarly, cycling around the village is hazardous, due to the combination of narrow roads, traffic volumes and the increasing number of HGVs.

Holmes Chapel has expanded substantially over the past 50+ years, with the population increasing from 1,816 residents in 1961 to 5,669 in 2001, a growth of 212%. This was followed by a period of relative stability, though a new phase of growth began in the current decade which will lead to a projected 823 new homes being built by 2025, with a corresponding increase in population to almost 8,000.

The village has three schools (two primaries and one secondary), a health centre, leisure centre, community centre, three churches, a supermarket and a range of independent shops. There is a wide range of voluntary organisations hosting many clubs and activities. They all generate local traffic, requiring parking facilities which are often full, leading to more congestion in the village centre at peak times.

Holmes Chapel also acts as a Local Service Centre for the surrounding villages which generates more local traffic to the schools, shops and health centre, with added pressure on parking facilities.

3. KEY CONSIDERATIONS

3.1 Traffic Volumes

Whilst definitive data is not presently available, local knowledge can testify to a very substantial increase in traffic volumes through the village over recent years. Some is undoubtedly generated by greater economic activity in the area, with a number of new business parks and commercial developments. Commuter traffic has also increased and the recent growth in house building is creating more commuting journeys as well as local journeys for shopping, schools and leisure.

There is no doubt that the current focus on economic growth which underpins new development is generating additional traffic, without commensurate initiatives to alleviate these impacts.

There are several significant businesses within or adjacent to the village, along with an extensive range of SME businesses. In addition, a supermarket opened in 2017, all contributing to the flows of traffic within and through the village.

There is a proposal for a sand quarry nearby on the A50 which would generate some new HGV traffic through the village if approved.

Traffic Survey Results:
99% of residents surveyed expressed concerns about village traffic levels, with 70% being very concerned.

3.2 Neighbourhood Plan

During 2015/16 the Parish Council supported the community in creating a Neighbourhood Plan (NP). A limitation of the NP process is that it is primarily concerned with land use for housing and commercial uses, with only limited scope to address issues such as roads, traffic and parking. As a result of this, once the Plan was made, a Strategic Planning Sub-Committee was formed to consider a range of matters during the life of the Plan and beyond. This report seeks to consider the traffic and transport issues in some detail.

3.3 Roads Infrastructure

During the past 60+ years of house building and population growth, no significant improvements have been made to the roads infrastructure, which still consists of a network with origins dating back to the era of turnpike roads. Roads are frequently narrow compared to current standards, with several notable pinch points viz:

- Station Road railway bridge
- Macclesfield Road, near the village centre
- Junction of A50 / A535 / B5308 in the village centre
- A50 through The Square (a conservation area)

The various factors described above have been taken into account in examining the issues and options which are discussed in the following sections. These locations are considered in more detail in Part 2 of the report.

3.4 M6 Smart Motorway upgrade

As noted briefly elsewhere in this report, Highways England are now close to completing an upgrade of the motorway between Junctions 16 and 19 to a Smart Motorway. The expected benefits are increased capacity, improved journey times and a safer environment.

When completed it is forecast that there will be some increases in traffic entering and exiting junction 18, with consequent impact on Holmes Chapel.

During the construction process there has been a history of increased numbers of road traffic incidents (RTCs) and situations that have resulted in closure of the motorway or extreme congestion. Both result in traffic using the local road network in an effort to circumvent the congestion. This does cause acute problems in the village, although it is expected this will diminish once the scheme is completed, expected in Q1/2019.

3.5 Other Road Projects

Two schemes will potentially have an impact on future traffic flows through Holmes Chapel:

1. Congleton by-pass [Ref 11]
2. Middlewich eastern relief road [Ref 12]

The Congleton scheme construction is now expected to commence in Q4/2018 and is designed to relieve the acute congestion in the town where the A34 and A54 routes converge. It is claimed that when completed, M6 traffic will prefer to use Junction 17, relieving Holmes Chapel and Junction 18. The Working Group is sceptical of this claim, as Junction 17 is only likely to appeal to traffic to / from the south. It is in any event, less free-flowing than Junction 18, making it less attractive to HGV traffic. Completion of the scheme is expected in 2021.

The Middlewich scheme is at an earlier stage of development, but funding has recently been approved. Once completed it will open up more commercial opportunities, generating additional traffic flows that could impact Holmes Chapel.

The main concern for Holmes Chapel is that with both schemes completed, the village will be “the meat in the sandwich”, with additional traffic generated by new roads on either side. It is important that the traffic survey data for these two schemes is taken account of when considering future traffic levels in the village.

3.6 HS2 Rail Project

In addition to the schemes referred to above, construction and operation of the planned HS2 Phase 2b rail project could generate additional traffic flows through the village.

3.7 Transport for the North

This strategic review could also have an indirect impact locally. A formal consultation process on the proposals took place between February and April 17th 2018 to which the Parish Council responded.

3.8 A50 Corridor Study

An A50 corridor study is projected to consider east-west connections along the corridor, but will not be completed until after the M6 smart motorway project is finished.

3.9 Cheshire & Warrington LEP Sub-Regional Transport Strategy

The Local Enterprise Partnership has recently released this strategy report which focusses on the transport issues involved in supporting the area’s economic growth strategy.

It also recognises that some key local routes require improvement to reduce congestion and improve the quality of life for communities.

One of the routes identified for improvement is the A54 through Holmes Chapel with the responsibility for progressing this delegated to the Constellation Partnership, a group of local authorities in Cheshire & Staffordshire. Scheme development is proposed for 5-10 years out, with delivery beyond 2028.

3.10 CEC Local Transport Plan (LTP3)

This plan was prepared to cover the period 2011 to 2026. This has recently been revised and updated to correlate with wider strategic plans

The plan has no content directly relating to the specific issues faced by Holmes Chapel, beyond general policies on maintenance, transport links, integration and so forth. There are also sections relating to health improvements, communities, road safety and demographic impacts. Much emphasis is placed upon economic benefits, but there is little coverage of environmental issues and the impacts of traffic congestion on communities. A significant amount of coverage is devoted to Crewe. Road improvement schemes that are included in the Plan do not relate to Holmes Chapel.

It is disappointing to note the lack of any measures in this extensive piece of work of benefit to Holmes Chapel and there is little visible evidence of any local action from the Implementation Plan.

It is recommended that the Parish Council continues to hold discussions with Cheshire East Council, Developers and the Constituency MP to progress options for relieving traffic volumes through the village.

Refs [8] Cheshire East Local Transport Plan

[11] Congleton relief road scheme

[12] Middlewich eastern by-pass scheme

[13] Transport for the North Strategy

[14] Cheshire & Warrington LEP Sub-Regional Transport Strategy

3.11 Public Transport

Holmes Chapel benefits from its location on the Crewe – Manchester rail line, with a roughly half-hourly service between the two locations, some via Manchester Airport. The local trains also allow connections to a wider range of routes from either Crewe or Manchester. Some service improvements are planned during 2018.

Bus services are much less satisfactory. One service plies between Crewe and Congleton on an hourly basis. A local bus service connects surrounding villages, Holmes Chapel and Sandbach on a limited schedule.

Both services have been reviewed as Cheshire East Council seeks to reduce its support costs for the social element of this provision. The local service was reduced in frequency from April 2018 as a result and the Crewe – Congleton route evening services have been curtailed.

There is no service on the north-south axis (Warrington / Knutsford – Newcastle / Stoke).

The key issue in any improvement in bus provision is the need for financial support for non-peak services or additional routes. Unless the bus provides convenient, frequent connections, the car remains the preferred choice for most people. Bus services, as presently configured, do not provide a service that is viable or attractive for most residents.

4. TRAFFIC ISSUES

4.1 Traffic volumes

Holmes Chapel lies at the intersection of three routes:

- A50 running north / south

- A54 running east / west
- A535 from north east

The M6 lies approximately one mile west of the village with access at Junction 18. At present it is being converted to a Smart Motorway between Junctions 16 and 19. This is having an impact on Holmes Chapel, as the works are resulting in frequent incidents with traffic leaving the motorway to find alternative routes, causing acute traffic congestion. The village is at the centre of such diversionary activity, resulting in periodic large increases in traffic on local roads.

In terms of through-traffic, DfT monitoring data indicates around 50,000 vehicles travel into / out of Holmes Chapel on the five key roads during an average day. In addition, there will be further traffic generated locally from residents travelling to use village services. It has not been possible to quantify this, but it clearly raises the 50,000 daily average. This figure needs to be considered in the context of the restricted road network of the village.

The most recent traffic study within the village was undertaken by Cheshire East Highways as part of the HGV review in 2012 and largely confirms the DfT data, but as this was primarily concerned with large lorry movements it provides an incomplete picture of the overall situation. There are also a number of Speed Indicator Devices (SIDs) installed around the village which record traffic volume and speed data and a number of new development planning applications have included limited traffic studies. [See Section 4.3]

The Working Group identified the need for a comprehensive traffic survey to establish a true baseline on which to assess the need for improvements. However, given the current status of the M6, Cheshire East Highways advise they are unwilling to carry out any traffic studies until the Smart works are completed in 2019 and traffic flows have “normalised”.

Traffic Survey Results: Percentages of residents surveyed who had experienced traffic congestion problems at the following locations:

- *Junction of London Road & Chester Road (A50 / A54) – 98% overall; 76% frequently*
- *Station Road bridge (A54) – 86% overall; 28% frequently*
- *Junction of Middlewich & Chester Roads (A54 / B5308) – 96% overall; 60% frequently*
- *Village centre (A50 / A535 / B5308)- 99% overall; 78% frequently*
The Square (London Road A54) – 94% overall; 49% frequently

4.2 Safety Considerations

Despite the combination of traffic usage and narrow roads, the village is fortunate in that the number of Road Traffic Collisions (RTC's) is relatively low, with fatalities thankfully rare, though not unknown.

We are aware that the numbers of individuals killed or seriously injured (KSI) is a key measure when considering the need for road improvements (and traffic speed enforcement).

Whilst recognising that this is an important consideration, we would submit that the low levels of such incidents should not debar the village from seeking both improvements and enforcement action. It is too late when a KSI incident occurs. We should be considering prevention, not retrospective action. Furthermore, the substantial new housing under construction is only adding to traffic levels and is generating more pedestrian footfall.

Many of the proposals in this report would help achieve the objectives of a safer and more pleasant environment.

See data from Crash Map: <http://www.crashmap.co.uk/Search>

A more extensive piece of work has subsequently been produced to consider the key locations for pedestrian hazards and to recommend potential improvement actions. This is shown in Part 2.

4.3 Traffic Speeds

Evidence from the Speed Indicator Devices (SID's) monitored by the Parish Council indicate that average speeds are broadly within the tolerance allowed by the Police before action is taken. Exceptions to this are Macclesfield Road, primarily westbound, and Manor Lane where average speeds tend to exceed that limit. As a result the Police periodically carry out enforcement action on these roads. It is evident from the data compiled that there are still significant instances of excessive speed, which are hidden in the average speed calculations.

The SID devices are regularly moved around the village to avoid familiarity and to ensure all main routes are monitored. By exception, to meet Highways Agency requirements during the M6 works, the devices on Knutsford Road and London Roads are permanently located. Data from the SID devices is provided on the Parish Council's website and periodically updated.

It should be noted that Police / DfT guidance is that speeding is not considered an actionable issue unless the 85th percentile speed is exceeded. [Ref: 15] This value is recorded on the SID reports for each location.

Traffic Survey Results

97% of respondents expressed concerns about traffic speeds, with 48% being very concerned

4.4 HGVs and Abnormal Loads

HGV traffic became a serious issue for residents in the early part of this decade, resulting in a campaign sponsored by Borough Councillors Les Gilbert & Andrew Kolker and supported by the Parish Council and the local MP. This led to a trial HGV restriction on two routes through the village which was confirmed by a Traffic Regulation Order in 2015, prohibiting vehicles over 7.5t from the specified roads, but at the cost of diverting additional traffic along residential roads.

Traffic Survey Results

98% of respondents surveyed expressed concerns about the volume of HGv traffic in the village, with 73% being very concerned

Holmes Chapel is located on a designated abnormal load route from Stafford to Liverpool.

This is now a source of increasing concern, given the volumes of daily traffic through the village. Transit of these loads creates additional problems when the convoys negotiate some exceptionally narrow locations and junctions. This causes very considerable additional congestion and real inconvenience to residents and road users in general.

Traffic Survey Results

83% of respondents surveyed expressed concerns about the movement of abnormal loads through the village, with 36% being very concerned

Summary of Objectives for Traffic Issues

	SHORT TERM OBJECTIVES	ACTION / STATUS
1	Road surface improvements – estate roads, Broad Lane, Crofter’s Court, Village centre	Balmoral Drive & village centre resurfaced Q3 2018. Awaiting funding for other roads
2	Trial change of junction priority Middlewich Road / Chester Road junction- A54	CEC Highways to assess options and report back. Concern expressed re: potential risks of making changes.
3	Provision of right turn phase from Chester Road to London Road, southbound	Existing junction capacity would be adversely affected. Preferred option is developer funded roundabout (see long term objectives)
4	Full traffic survey by CEC Highways	Await completion of M6 smart motorway in Q1/2019
5	Greater enforcement of HGV restrictions and speeding	Periodic enforcement by PCSO but more needed
6	Highways England and Cheshire Constabulary to be consulted about possible alternative routes for abnormal loads, avoiding Holmes Chapel.	Initial discussions with CEC Highways suggest this is a complex issue and is not considered a priority for action
7	Consider further extensions to 30mph limits, with possible 20mph limit in village centre to reduce traffic speeds on roads in the village	To discuss with CEC Highways, local Parish Councils and developers.

	LONGER TERM OBJECTIVES	ACTION / STATUS
1	A50 / 54 junction: replace traffic lights with roundabout, subject to adequate pedestrian crossing provision.	Financed by developer contribution from site on London Road. Concerns expressed re: safe pedestrian crossing provision. Engaging with CEC on design
2	Confirm Middlewich Road / Chester Road A54 priority from trial period	Subject to successful trial result (see short term objectives)

Refs [1] Appendix 1 Traffic data sources
 [2] CEC HGV Re-routing report May 2013
 [10] Highways England abnormal load routes
 [14] 85th percentile principles

5. CYCLING

There are a number of local cyclists and the village also has many cyclists passing through. From NP work it is believed more people would cycle if the local infrastructure was more appropriate for these users. At present there are no dedicated cycle routes through the village, although a local initiative has identified a network of residential road and footpaths to create a somewhat circuitous way around the village for residents, avoiding most main roads. Those main roads are hazardous for cyclists given both the traffic volumes and the restricted widths in many places, together with poor surface quality.

Cheshire East Council has a cycling strategy document and refers to cycling in a number of instances in its Local Transport Plan. The problem with these plans is lack of delivery on the ground. Aspirations are fine, but they have not delivered satisfactory outcomes in Holmes Chapel.

The Holmes Chapel Neighbourhood Plan (HCNP) included a cycling analysis report in its evidence base. This report makes a number of practical suggestions for improvements in the village to make cycling safer and more attractive, with all the benefits that accrue from the activity. It builds on the existing route suggestions, proposing adequate signage and safe crossing points on main roads. The key objective is to create linkages such that the individual, but “isolated”, residential areas are effectively linked together with the village centre to create a viable network of safe cycling routes around the village. It further proposes that these routes should be subject to a 20mph speed limit for vehicles.

Traffic Survey results
 70% of respondents never cycle in the village, mainly due to safety concerns
 69% of respondents said they would or might cycle if safe routes were available

Summary of Objectives for Cycling Issues

	LONG TERM OBJECTIVES	ACTION / STATUS
1	Creation of effective safe cycling routes in line with CEC & HCNP strategy documents	To be progressed with CEC Highways / Local user groups

Refs [4]TT14 Cycling Analysis v2 report
 [5] CEC Cycling Strategy report 2017-2027
 [6] Village map: proposed safe cycling routes

6. PARKING

As noted earlier, parking facilities can be overloaded, particularly at peak times. A key constraint is long-term parking provision, as most facilities are time limited and some have become chargeable. Those few locations

that do not impose time limits are soon filled, leaving long-term users to park on residential roads, creating potential hazards and problems with residents.

The Health Centre serves a wide area around Holmes Chapel, generating a lot of additional traffic and demand for parking, as users need to travel in from surrounding communities.

There is no easy or immediate solution in prospect as there is an acute lack of land in the village centre. In the longer term, re-development of brownfield sites may provide an opportunity to create long-term facilities on the edge of the village at the Victoria Mills site or nearer to the M6. Other options may arise from the relocation of village centre facilities, but are likely to be difficult to deliver due to the high land values of such sites.

Traffic Survey Results

95% of respondents commented on parking problems in the village, with 43% being very concerned

Summary of Objectives for Parking Issues

	LONG TERM OBJECTIVES	ACTION / STATUS (February 2018)
1	Additional car parking provision, particularly for long-term use	To be investigated by SPTG as part of future developments

Ref [7] HCNP Car Parking report

7. AIR QUALITY

With the volumes of traffic in the village, concerns have been expressed about the levels of air pollution. A single NOx monitoring tube has been located at the junction of London, Station & Chester Roads for several years and has been now been relocated to a more effective position.

Results from this device for 2017 show a significant increase in NOx, compared to previous data obtained, with an annual corrected average of 37.64µg/m³, against a standard of 40µg/m³. The results in winter months are considerably higher.

A Parish Council Committee met representatives from Cheshire East Environmental Services to discuss local concerns. As a result, a second tube has been installed in the village centre to provide additional data. Results from this device are not yet available. The historic NOx results have been considered to fall well inside any actionable levels, but the recent data does give more cause for concern and this is being taken up with CEC Environmental Services.

Results for other pollutants are very low across Cheshire East and are not routinely monitored.

Traffic Survey Results

96% of respondents expressed concerns about air quality, with 41% being very concerned

Summary of Objectives for Air Quality Issues

	SHORT TERM OBJECTIVES	ACTION / STATUS
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1	Consider need for further air quality assessment and current results	Relocated/additional monitoring tubes have been installed. Information from CEC indicates average NOx results are within guidelines. Existing measuring tube relocated & 2 nd tube has been installed in village centre
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Ref [9] Cheshire East air quality strategy

8. RELIEF ROAD

8.1 Justification

The Working Group, in considering the range of issues that affect the village and its residents, believes that the optimum solution is the provision of a relief road (or by-pass) to take through-traffic away from the village centre and the restricted residential roads currently used.

The Working Group believe traffic volumes will continue to grow in the village and the surrounding area, driven by the increase in planned housing, both in Holmes Chapel and other local towns, in combination with the projected increased economic activity in Cheshire East, the planned new roads in Congleton and Middlewich, together with the arrival of HS2.

The benefits of such a road would be substantial:

- Less traffic volume, noise, vibration and lower emissions
- A safer environment for both pedestrians and cyclists
- Opportunity to remodel the village centre
- Faster journey times for drivers
- Potential for new economic growth and village facilities
- Wider economic benefits as part of a network of local road improvements

Traffic Survey Results

52% of respondents agreed or strongly agreed with the provision of a by-pass / relief road, even if that meant more housing developments in the village

Additional comments provided by respondents suggests that support for a by-pass would be considerably higher if additional new housing was not a pre-condition

The need to make progress is clear. Continuing new developments erode the opportunity to protect a line for such a road. Even five years ago options were better than today and action is needed before today's options are further limited.

8.2 Route Options

The Working Group consider the preferred route is from the A535, crossing Marsh Lane (A54), Dog Lane (A50), the railway line and terminating on Middlewich Road near to Junction 18 of the M6.

Should Highways England proceed with a possible new junction on the M6 between Junctions 18 and 19, a different line of route may be appropriate, taking traffic to the north of Holmes Chapel.

It is clear that a strategic review of these options is needed to develop the optimum route for a road.

We recognise that completion of the current upgrade of the M6 will be needed before reliable traffic data for Holmes Chapel can be compiled, but this should not preclude other studies being progressed.

It is recommended that Cheshire East Council take note of the proposals in the Cheshire & Warrington LEP Report, undertake studies to agree and protect potential lines of route and consider the costs and benefits of a relief road to make the case for the required funding bid.

Summary of Objectives for Relief Road Issues

	LONG TERM OBJECTIVES	ACTION / STATUS
1	Full traffic survey on all routes through the village	For consideration by CEC by late 2019
2	Provision of a relief road – route to be determined	Subject to traffic survey outcome, TfN / CEC strategic priorities & funding issues
3	Consider partial closure of junction 18 if a new junction is created between 18 & 19	Long term aim if a new junction is created on M6 (Roads for the North / A50 corridor study)

9. PEDESTRIAN ISSUES

As noted previously, many footways in the village are narrow, creating potential hazards for pedestrians. On Macclesfield Road this problem was a key reason for the HGV restriction being imposed. There are also a number of locations where the footway only exists at one side of the road, forcing pedestrians to make additional road crossings against busy traffic. This is explored in greater detail in Part 2.

The physical constraints of existing properties make the prospect of footway improvements virtually impossible, with the inevitable conclusion that the best solution is to take the traffic away to improve pedestrian safety.

There are also several places where additional controlled pedestrian crossing facilities would be beneficial in the short / medium term.

The Working Group identified the need to progress the justification and financing of new crossing provision with CEC Highways. Additionally, such is the level of public concern about pedestrian safety, that the Holmes Chapel Partnership launched a petition in February 2018 for the provision of improved safe crossing points at the A50/A54 junction, which was submitted to CEC Highways.

Traffic Survey Results

98% of respondents expressed concerns about pedestrian safety around the village, with 60% being very concerned.

Summary of Objectives for Pedestrian Issues

	SHORT TERM OBJECTIVES	ACTION / STATUS
1	Footway condition improvements (subject to survey)	Survey completed & submitted to CEC Q2/2018
2	Pedestrian crossing provision near HC Primary School, Middlewich Road	Completed Q1/2018
3	Pedestrian crossing improvements A50/A54 junction, Chester Road near The Drive (In lieu of pedestrian phase at London Road traffic lights)	CEC have carried out a usage assessment which does not justify further action. CEC unwilling to change existing light phasing due to traffic flow issues
4	Upgrade zebra to Puffin crossing on London Road, village centre	Completed Q2/2018
5	Additional pedestrian crossing Middlewich Road near Cottons Farm development	S106 developer funding. Completed Q3/2018
6	Additional pedestrian crossing, Macclesfield Road near Manor Lane	S 106 developer funding. Completed Q2/2018
7	Additional pedestrian crossing, Knutsford Road near The Hawthornes	CEC have carried out a usage assessment which does not justify further action.
8	Additional pedestrian crossing on London Road near Iron Bridge	Conditional on development of former Fison’s site
9	Continued below Raised kerbs to protect pedestrians: Station Road, Macclesfield Road	Proposed to CEC Highways. Initial response is negative
10	A safe crossing facility on London Road adjacent to the Health Centre / Library	A HCPC survey shows an average of 59 persons/hour cross at this point

Ref [3] appendix 2 Additional pedestrian crossing facilities

Ref: appendix 16 Traffic Accident Risks in Holmes Chapel

10. PEDESTRIANISATION OF A50 – THE SQUARE / LONDON ROAD

Three options have been considered:

- (a) A shared space scheme where the road space can be occupied by both pedestrians and vehicles. This has been implemented locally in Poynton and elsewhere in UK and Europe.
- (b) A part pedestrianisation of the area with a one-way traffic flow (direction to be determined)
- (c) Full pedestrianisation between the A535/ A50 junction and Parkway, with only limited access for residents and delivery vehicles

There is a clear conflict between vehicles and pedestrians at this central location in the village. The road is very narrow as it passes St. Luke’s Church and there is no pavement around the Church perimeter. The

pavement at the opposite side of the road is also severely restricted, making this an extremely difficult point for drivers and pedestrians alike.

Traffic Survey results

Only 27% of respondents were opposed to some form of pedestrianisation in the village centre, with 47% supporting full pedestrianisation

The case for a shared space scheme is doubtful due to current DfT guidance, the volumes of traffic and the constricted space available around the Church, which is likely to create unacceptable hazards for safe implementation.

Conversely, there is a stronger case for considering part pedestrianisation of the area, which would run from the junction with the A535 / B5308 through the village centre to Parkway.

The advantages for pedestrians are obvious and a scheme would make for a far more pleasant environment for residents and visitor alike, who would enjoy a safer, more accessible area around the key shops and businesses in the village centre.

There are however disadvantages for drivers, who would need to follow alternative routes via EITHER Macclesfield Road / Manor Lane / Station Road (and reverse order) OR Middlewich Road / Chester Road (and reverse order), in order to regain the A50. Whilst this would add a little to journey times, the change could result in increased traffic flows on the above mentioned roads.

The views of traders and businesses in the area must be considered and the issues of potential loss of passing trade taken account of, as well as access to premises for supply of goods and services. Similarly, local resident’s views will need to be considered in the context of premises access.

The Working Group believes full pedestrianisation would be difficult to introduce without the provision of a relief road, but that a one-way traffic scheme with pedestrian improvements could be delivered.

Summary of Objectives for Pedestrianisation

	LONG TERM OBJECTIVES	ACTION / STATUS
1	Consult with residents, businesses and Cheshire East Highways on options to create a pedestrianised area	Resident’s views ascertained. Business views to be obtained CEC to be consulted
2	Shared space scheme for A50 through village centre	Government guidance is not in favour of such schemes
3	A one-way traffic flow between A535 / A50 junction and Parkway	Evidence from recent road closures suggests this is a possible option. More information to be obtained
4	Close A50 in the village centre to through traffic	Long term aim, once a by-pass scheme realised

Part 2

PEDESTRIAN ACCIDENT RISKS IN HOLMES CHAPEL

A report by the Traffic & Transport Working Group

1. INTRODUCTION

The objective of this report is to present an assessment of the locations within Holmes Chapel where there is a high risk of traffic accidents occurring, with particular focus on potential injury to pedestrians.

The routes referred to in this report are all key walking paths for residents walking to school or using village facilities on foot, often accompanied by small children and push chairs. The village centre is also a key route for the more elderly village population who are less steady and also likely to be less aware of the dangers around them.

The report has been produced by a Working Group of volunteers from the community, chaired by a Parish Councillor. The Working Group reports to the Strategic Planning Sub-Committee, which in turn is responsible to the Strategy & Finance Committee of the Parish Council.

It is intended that the report will be submitted to Cheshire East Council with a request for the accident risk locations to be examined by the appropriate department and for a programme of action to mitigate or remove the risks to be put into effect.

2. BACKGROUND

Much of the background to the traffic accident risks in Holmes Chapel is covered in Part 1 of this report, which highlights the factors which have created traffic accident risks, including:

- growth in all vehicle volumes passing through the village, in particular HGVs using the M6 to access new commercial and distribution centres in the surrounding area;
- additional housing development on the outskirts of the village, resulting in more vehicle and pedestrian traffic flows within the village;
- narrow pedestrian footways reflecting Holmes Chapel's small village heritage;
- several key 'pinch points' where main roads pass through the village centre and residential areas which were never designed for the volume and type of vehicles currently using them.

The report also highlights some future developments which will exacerbate the accident risks:

- approval for a projected 823 new homes to be built by 2025, increasing the population to almost 8,000 and adding to the number of pedestrians and vehicles moving around the village;
- The proposed development of Manor Point Business Park, to include commercial / light industrial space which will generate significant additional traffic

- the Congleton Link Road and Middlewich eastern by-pass which will leave Holmes Chapel as “the meat in the sandwich”, with additional traffic generated by new roads on either side.

3. METHODOLOGY

The Working Group identified and examined the risks under the following headings:

- **LOCATION:** What is the specific location where accidents may occur?
- **PEDESTRIAN ACCIDENT RISK ASSESSMENT SCORE:** (See below)
- **TRAFFIC SURVEY RESPONSE:** (See below)
- **TYPE OF ACCIDENT:** What is the nature of the accident that could occur e.g. vehicles hitting pedestrians, vehicle collisions?
- **CAUSES OF RISK:** Why is there a risk of accidents at this location e.g. road/pavement layout, vehicle speed, visibility issues?
- **POSSIBLE MEASURES:** What measures might be put in place which would mitigate the risk or remove it altogether?

PEDESTRIAN ACCIDENT RISK ASSESSMENT: In order to obtain objective data about the potential risks in these locations, a member of the Working Group analysed the measurements and usage of the main roads around the village and formulated a risk score for each location. The methodology for this assessment is described in Appendix 1.

COMMUNITY TRAFFIC SURVEY: In order to obtain input from the wider community about traffic issues, the Working Group conducted a questionnaire survey during August and September 2018. In total, 669 people responded to the survey, roughly 10% of the village population.

Some of the survey questionnaire findings are reported in this document to further substantiate the need for a formal review of the accident risk locations. The questions in the survey related to traffic congestion, rather than specifically to accidents; nevertheless, the volume of vehicles using the roads does indicate the potential for accidents occurring.

In terms of general concerns about accident risks, 82% of respondents stated that they were Concerned (21%) or Very Concerned (61%) about pedestrian safety in the village. There were similar levels of concern expressed regarding speeding and heavy goods vehicles. A number of residents described the roads in Holmes Chapel as ‘dangerous’. 69% of respondents never cycle around the village and, whilst there were various reasons cited for this, the majority of comments mentioned traffic volumes and speeding traffic which make cycling unsafe.

ACCIDENT HISTORY: The impact of an accident between vehicles and pedestrians would be assessed as HIGH but to date the likelihood of such incidents occurring may have been deemed LOW when taking account of previous accident history and considering that pedestrians are generally careful in going about their business on foot.

However, the Working Group submits that the current and future growth in traffic volumes in Holmes Chapel, as a result of housing developments and road projects, makes the likelihood of accidents occurring in the future greater than it was in the past. In particular, the increase in housing to the east of the railway line is going to mean more and more use of some of the key footpaths. Anecdotal evidence from residents about ‘near miss’ incidents testifies to these risks already increasing.

The risk of accidents occurring in the locations identified in this report should not be considered low purely on the grounds that there may not be a history of incidents in these locations. The past is not a guide to the future due to changed conditions, and prevention is better than cure.

4. ACCIDENT RISK LOCATIONS (See Locations map: Appendix 4, P36)

LOCATION 1: **Station Road (A54) from junction of Manor Lane to junction with London Road (A50), including the railway station entrance**

ACCIDENT RISK SCORE: **3 (High Risk)**

TRAFFIC SURVEY RESPONSE: **28% had witnessed traffic congestion frequently at this location, 58% sometimes.**

TYPE OF ACCIDENT: Risk of pedestrian impact by large vehicles due to narrow footway causing pedestrians to stray onto the road and/or overhang from large vehicles especially if two LGVs happen to be passing one another.

CAUSES OF RISK: This length of road has only one pavement, on the north side. The pavement is narrow and well below previous or current standards. The road is the main access from the village to the railway station and Community Centre, and is thus used by high numbers of pedestrians, especially those from arriving trains. There is insufficient room for pedestrians to pass each other safely when travelling in opposite directions. Pedestrians with buggies and/or small children are especially at risk, as are those with walking disabilities or infirmities.

The road width is inadequate approaching the narrow railway bridge and it is impossible for two HGVs to pass over the bridge together. These vehicles move to the left to try to pass, inevitably coming extremely close to pedestrians on the pavement, who have nowhere to go to avoid the vehicles. In many cases cars approaching at the same time as an HGV will stop before the top of the bridge to give the HGV room to cross the white line as it crosses the bridge. The problem is exacerbated by having the entrance /exit to a pub car park just before the crest of the bridge on the west side.

There is a further hazard at the eastern end of the road where the entrance to the station car park, together with three business entrances, create a long stretch of road to cross with no effective pedestrian provision. Crossing is hazardous due to the number of directions vehicles can appear from, with limited visibility to both classes of user.

The construction of almost 250 new homes is now exacerbating these problems, as hundreds of new residents begin to use this road to access schools and village services.

In summary, the issues with this stretch of road are:

- insufficient road width to accommodate the traffic, especially two passing HGVs;
- narrow pavement on ONE side of the road only;
- increasing pedestrian usage from the railway station, Community Centre and new housing;
- significant HGV traffic
- the railway bridge is humped giving limited visibility of approaching traffic;
- multiple vehicle access points at the eastern end with no safe pedestrian provision to cross.

POSSIBLE MEASURES: Some immediate and low-cost safety improvements could be made by substantial hedge trimming right to the back of the tarmac path surface and clearance of the undergrowth that has intruded over the path beneath the hedge.

A safe, accessible footpath along North side of the road is needed approaching the Swan Inn and railway station.

The installation of railings along the narrower sections of pavement would afford pedestrians some protection from passing vehicles.

The footpath width approaching the station is only capable of proper improvement if the existing hedge is removed. As this is believed to be private land, CEC would need to enact a compulsory purchase order (CPO) to widen the pavement.

Measures could be taken to improve the crossing at the station entrance with greater clarity of road markings, either painting pedestrian crossing markings across the road, with suitable signage, or by creating a full footway around the perimeter with appropriate signage for vehicles and possibly guide rails at each end to identify the correct route. A clearly marked pedestrian route including clearing the way across the gated entrance to the manor lane business park could also improve the situation.

A traffic light control could be installed on Station Road railway bridge which would remove the risk of collisions between large vehicles crossing the bridge at the same time.



Station Rd – narrow footway & close proximity of vehicles to pedestrians



Station Rd railway bridge showing restricted width for two-way traffic & narrow footway



Wide entrance to railway station car park & business premises from east, showing station car park (ahead) & two business park entrances (rhs)



Entrance to station car park & business premises from west showing extent of pedestrian hazard – no alternative footway on other side of road

LOCATION 2: Footpath on west side of A50 opposite St Lukes and where it narrows by the corner of Thorneycroft Solicitors

ACCIDENT RISK SCORE: (Not yet assessed)

TRAFFIC SURVEY RESPONSE: 49% had witnessed traffic congestion frequently at this location, 45% sometimes.

TYPE OF ACCIDENT: There is a risk of pedestrians being nudged onto the carriageway due to the inadequate width of the footway.

CAUSES OF RISK: There is a blind bend round St Luke’s church, with a footpath on one side only and a very narrow section at corner of Gascoigne Halman Estate Agents. There is risk of impact due to the fact that the road is too narrow for opposing vehicles to pass each other. There is also a risk of the tail swing of an agricultural vehicle (tractor with plough) hitting a pedestrian as it overhangs the pavement.

POSSIBLE MEASURES: The pavement needs to be widened by narrowing the road width so that there is enough room for cars to pass each other with care but large vehicles would have to give way to one another (which they generally do now). The provision of a one-way priority sign, as used in various locations, would inform drivers.

ADDITIONAL RISKS AND MEASURES ON A50: The above is only one of a number of potential accident risk to pedestrians along the A50 from the junction with the A535 (Macclesfield Road) to the junction with the A54 (Station Road/ Chester Road). Other locations are:

- Pedestrians crossing to Barclay’s bank, The Cobbles and shops on Macclesfield Road via an unmarked pedestrian crossing on a wide road with a central refuge. This crossing point is largely ignored by drivers, even when someone is already starting to cross. It is very close to the mini-roundabout which makes drivers less likely to stop.
- Pedestrians crossing from the Red Lion pub to shops on the opposite side.
- Casual pedestrian traffic crossing adjacent to the Library / Bus Stops, often elderly residents and school pupils. One person has already been killed here.

A separate report is being produced by the Traffic & Transport Working Group which will set out a detailed list of ideas to create a pedestrian-friendly village centre along the whole of this stretch of road.



Narrow footway, London Rd / The Square



Hazard of large vehicles – London Road / The Square

LOCATION 3: Macclesfield Road (A535), approaching Village Centre

ACCIDENT RISK SCORE: 3 (High Risk)

TRAFFIC SURVEY RESPONSE: 78% had witnessed traffic congestion frequently at the junction of the B5308/A50/A535, 21% sometimes.

TYPE OF ACCIDENT: The road is very narrow at this point, as are the pavements. Despite the introduction of an HGV weight limit in the westbound direction, large vehicles still pass this point and present a hazard to passing pedestrians, with the potential for vehicle protrusions to strike them. The risk is substantially increased if two vehicles have to pass each other as there is an inevitable tendency for drivers to move left, closer to the pavement, to avoid touching the other vehicle. An HGV (or bus) and a car cannot pass each other at this point without one of them mounting the pavement.

The risk is to pedestrians, especially those with prams / buggies and small children. Pedestrians with disabilities are also vulnerable at this point, including those using walking aids or mobility devices as they have less agility to move out of the way. This is a very difficult place to cross Macclesfield Road, especially from north to south, as traffic from Knutsford Road needing to turn left is effectively behind the person wishing to cross.

CAUSES OF RISK: Narrow roads and pavements - the width is inadequate for the size of modern transport vehicles. There are shops and a restaurant at this point generating both footfall and pedestrians crossing the road, adding to the hazards. This road section is close to a junction at its western end, resulting in queueing traffic and has a bend at its eastern end reducing visibility for both vehicles and pedestrians.

In addition, pedestrian flow is likely to increase as some 90 more homes are presently being built at the eastern end of this road, with a further 160 projected on a brown field re-development part way along the road. There will be additional impact from the proposed Manor Point Business Park on Manor Lane. All this will inevitably impact on Macclesfield Road which is the main access route to schools and village services for these residents.

POSSIBLE MEASURES: A 20mph limit would emphasise the hazardous nature of this road. Raised kerbs and/or railings would protect pedestrians from the adjacent traffic. Road surface treatment/marking could also re-inforce the risk element to drivers. Signage indicating to drivers that they should give way to pedestrians would also be helpful.

A one-way traffic system along this section of Macclesfield Road would alleviate the risk to pedestrians by allowing large vehicles to travel along the centre of the road. However, this option would require a more extensive, strategic review of traffic flows around the village.



LOCATION 4: Chester Road / London Road junction

ACCIDENT RISK SCORE: Chester Road East 6
Chester Road West 3 (High Risk)

TRAFFIC SURVEY RESPONSE: 76% had witnessed traffic congestion frequently at this location, 22% sometimes.

TYPE OF ACCIDENT: This is a very busy traffic light controlled junction with a controlled pedestrian crossing on the north side of London Road only. Pedestrians crossing Chester Road from either direction have to run the gauntlet of traffic approaching from any of four directions, with a very short traffic light delay to facilitate a safe crossing window. The duration of this window is around 20 seconds only.

Whilst the risk is from all directions, the worst one is arguably when crossing from South to North, from vehicles turning left off the A50 into Chester Road, as the pedestrian’s back is to the traffic and visibility is limited.

There is a clear risk of accidents to pedestrians, increasingly to those with young children as well as those with infirmities or disabilities.

CAUSES OF RISK: The pavement on the south side of Chester Road is too narrow to accommodate a controlled pedestrian crossing. (It is even too narrow to accommodate a single pushchair or buggy.) There is no controlled facility to cross the opposite legs of the four-way junction to avoid Chester Road and this would also present a longer crossing route. There is equally no option to site a crossing point away from the traffic lights owing to a length of very narrow pavement on the south side of Chester Road.

HGVs turning from London Road into Chester Road present a very significant hazard due to the sweep of the vehicle limiting a driver’s view of pedestrians trying to cross. Other hazards arise from some cars speeding across the junction under green lights and those who jump the red lights.

A major new housing development of up to 240 homes is commencing to the south on London Road. This is likely to generate a substantial additional pedestrian footfall, as those new residents access the village centre, making the hazard level even greater.

POSSIBLE MEASURES: A controlled crossing facility is the only effective solution. Although far from ideal, crossing London Road west to east, then Station Road south to north is the only practicable solution. This would also facilitate safe access to the railway station. A crossing needs to be incorporated into each “leg” of this junction, in which case the crossings should be set back slightly from the actual junction. These comments are based on the existing junction configuration.

ROUNDAABOUT: CEC Highways are developing proposals to replace the traffic light control with a roundabout, which raises additional concerns over safe pedestrian crossing provision. This has been communicated to Cheshire East Highways and a petition was presented demonstrating the level of Community concern about the impact of this proposal.

It is essential that safe pedestrian crossing provision is a fundamental part of any such scheme.



Chester Rd showing extremely narrow footway on south side	Chester Rd showing HGV hazard for crossing pedestrians
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LOCATION 5: **Knutsford Road approaching village**

ACCIDENT RISK SCORE: (Not yet assessed)

TRAFFIC SURVEY RESPONSE: **78% had witnessed traffic congestion frequently at the junction of the B5308/A50/A535, 21% sometimes.**

TYPE OF ACCIDENT: This is a very busy junction bringing traffic to and from the village via the mini roundabouts, and is on the same corner as the hazard in section 6. Crossing Knutsford Road at this point is very hazardous, especially from west to east, as traffic is coming from the right (across the mini roundabouts), from the left up Knutsford Road, and from behind, viz. traffic turning left from Middlewich Road into Knutsford Road.

The junction is also hazardous to cyclists coming up Knutsford Road and intending to go into the village centre via the mini roundabouts. Vehicles have been observed turning left at this point into Macclesfield Road, in front of waiting cyclists.

CAUSES OF RISK: There is no traffic island in Knutsford Road, which could act as a half way refuge as there is on London Road (opposite Barclays Bank), and on Middlewich Road (opposite the George and Dragon). The road is also wider at this point, providing adequate room for cars and HGVs turning these corners, but making it further for pedestrians to travel. Drivers are also concentrating on looking for a gap to enter the mini roundabouts, and therefore are less aware of pedestrians or cyclists.

POSSIBLE MEASURES: Signage indicating the presence of pedestrians and cyclists would inform drivers to take care, in addition to a central refuge so that the road could be crossed in two parts as with Middlewich and London Roads. To accommodate the latter it may be necessary to narrow the pavement on the west side of Knutsford Road and widen the road slightly. Barriers (railings) on the corner of Knutsford Road/Middlewich Road, and the corner of Knutsford Road/Macclesfield Road would prevent pedestrians from crossing right on the junction.

Although simple zebra crossings seem to have gone out of favour, one at this location would help considerably.

[see next page for images]



Knutsford Road approaching Macclesfield Road
(centre left of image) and lack of centre refuge on this arm



View towards Knutsford Road with Macclesfield Road to RHS
& centre refuge on London Road / The Square

LOCATION 6: Junction of Chester Road (A54) and Middlewich Road (B5308)

ACCIDENT RISK SCORE: 6

TRAFFIC SURVEY RESPONSE: 60% had witnessed traffic congestion frequently at this location, 36% sometimes.

TYPE OF ACCIDENT: Vehicle collision and injury, especially to motorcyclists and cyclists.

CAUSES OF RISK: Tight corner, especially for HGVs turning.

POSSIBLE MEASURES: Junction needs to be widened to allow HGV's to pull round. Could be converted into a roundabout to give better access turning right into/out of Chester road and avoid conflicts with HGV's turning into Chester Road and drivers waiting to turn right out of Chester Road.



HGV turning from Chester Rd to Middlewich Rd

HGV entering Chester Rd from Middlewich Rd

Appendix 1

PEDESTRIAN ACCIDENT RISK ASSESSMENT

METHODOLOGY

This assessment highlights pedestrian safety risks along the primary road routes in Holmes Chapel based on observable evidence and data.

The aim of the assessment is to produce a simple evaluation so that each area is analysed and given a numeric value. This value will only change when the evaluated conditions or parameters change.

This method will take away any personal assessment of a situation, but may support and objectively substantiate the concerns expressed by residents.

The scores for road width, pavement design, and footfall are aggregated into a total score where a low figure denotes maximum risk to pedestrians.

In addition, the road widths have been compared to the maximum permissible HGV width in order to demonstrate the proximity of vehicles to pedestrians on the pavement.

Speed and volume of traffic have not been considered but could be included at a later stage and would have to be matched against footfall.

Three main high-risk areas are highlighted by this survey:

- **from The Square eastwards along Macclesfield Road for a distance of 250 metres;**
- **Station Road approximately 250 metres either side of the railway bridge;**
- **Chester Road along the 200 metre section approaching the junction with London Road.**

These findings support the views expressed by residents in the Traffic Survey and anecdotal evidence about 'near-miss' incidence at the locations which are examined in this report.

This survey methodology has shown that pedestrian safety issues can be demonstrated in numerical values.

This exercise can be repeated in the future and, if nothing has changed, then the risk scores will remain constant. As changes are made/observed, the model can be updated.

(Note: London Road/The Square has not been considered as this is being covered in a separate report on measures to make the village centre more pedestrian-friendly.)

RISK ASSESSMENT DEFINITIONS

(low score denotes maximum risk)

Roads (single carriageway)

Width (metres)		Score
Narrow	< 3 metres	1
Mid	<3.5 / >3.0	2
Wide	>3.5	3

Pavements (based on proximity to road)

Pavement Design	Map Key	Score
Next to road	Red	1
Separated by verge	Green	2
Separated by major verge	Blue	3

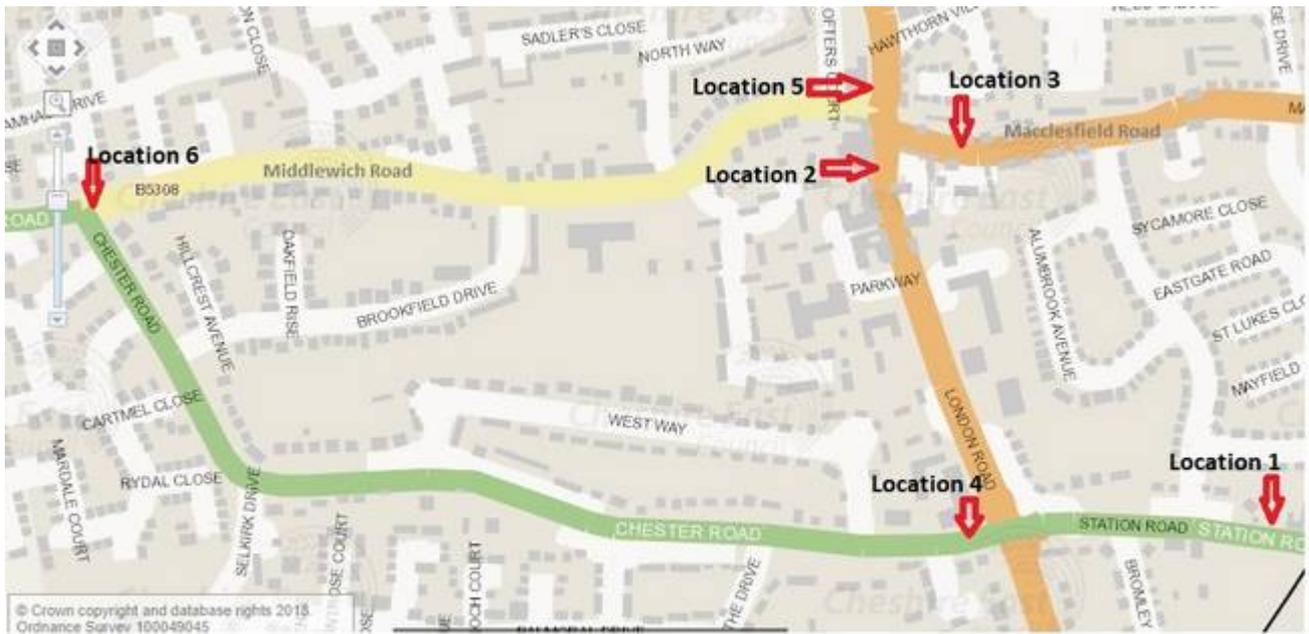
Footfall (considered as steady state*)

	Pedestrians per hour	Score
High	>15	1
Medium	<15	2
Low	<10	3

* A comprehensive survey of footfall is needed as pedestrian volumes are obviously irregular and are subject to events e.g. school timetables, rail timetables and shopping patterns.

Continued below

Appendix 4: Accident risk locations map



Holmes Chapel - Key accident risk locations identified in the text

See next page for list of references

11. LIST OF REFERENCES FOR PART ONE**[1] Appendix 1 Traffic flow data**

DATA SOURCE	LOCATION	DATA PERIOD Average daily flow	COUNT POINT TRAFFIC VOLUME	COUNT POINT REFERENCE
DfT	A50 (A535 – A54) London Rd HC **	2015	10331	7805
	A50 (Knutsford boundary to A535 HC)	2015	11616	81272
	A54 (A50 HC to Congleton boundary)	2015	6163	26559
	A54 (M6 Jn18 to A50 London Rd HC)	2015	15484	46567
	A535 (Jn A50 HC to Chelford) **	2015	8120	57286
TOTAL FLOW			51714	

Source: <http://www.dft.gov.uk/traffic-counts/cp.php?la=East+Cheshire#46567>

DATA SOURCE	LOCATION	DATA PERIOD	COUNT POINT TRAFFIC VOLUME	COUNT POINT
Cheshire East Highways	A54 Middlewich Road eastbound	March 2012	6488	Before Chester Road junction
	A54 Middlewich Road westbound	March 2012	6167	After Chester Road junction
	A54 Marsh Lane eastbound	March 2012	3879	After Manor Lane junction
	A54 Marsh Lane westbound	March 2012	3841	Before Manor Lane junction
	A50 Knutsford Road northbound	March 2012	5444	After A535 junction
	A50 Knutsford Road southbound	March 2012	5485	Before A535 junction
	A50 London Road northbound	March 2012	4488	Before A54 junction
	A50 London Road southbound	March 2012	4474	After A54 junction
	A535 Macclesfield Road eastbound	March 2012	4199	After manor Lane junction
	A535 Macclesfield Road westbound	March 2012	4175	Before Manor Lane junction
TOTAL FLOW			48640	

Source: CEC Traffic rerouting Report May 2013

https://drive.google.com/open?id=0B6_yZJT7tZfNQTvGdFY2Tmgxb28

[2] CEC HGV Re-routing options report May 2013

https://drive.google.com/open?id=0B6_yZJT7tZfNT3ZsUFJZSC0xd2M

[3] Appendix 2 Proposed new pedestrian crossing locations:

Middlewich Road near HC Primary School: (agreed; completion due Q1 2018)

Existing Zebra crossing, The Square near the Precinct (proposed upgrade to light controlled crossing)

Macclesfield Road near to Manor Lane (Developer funded as part of new housing development)

Chester Road near The Drive (subject to pedestrian usage survey by CEC Highways)

Knutsford Road adjacent to The Hawthornes (subject to pedestrian usage survey by CEC Highways)

London Road near Iron Bridge (conditional on future development of "Fison's site")

[4] TT14 Cycling Analysis for Holmes Chapel:

<https://drive.google.com/open?id=0B-3cNGY--dDqVnMtYmNxa2NkbWM>

[5] CEC Cycling Strategy:

<http://www.cheshireeast.gov.uk/pdf/highways/cycling/cheshire-east-council-cycling-strategy-march-2017.pdf>

[6] Map of proposed safe village cycling routes

<https://drive.google.com/open?id=0B-3cNGY--dDqZlhjYTFid0RyaUk>

[7] HCNP Car Parking Report

<https://drive.google.com/open?id=0B-3cNGY--dDqWmRrZVNYQzFvV28>

[8] CEC Local Transport Plan documents LTP3:

http://www.cheshireeast.gov.uk/public_transport/local_transport_plan/local_transport_plan.aspx

[9] CEC Air Quality Strategy:

http://www.cheshireeast.gov.uk/environment/environmental_health/local_air_quality/air_quality_strategy.aspx

[10] Highways England - Abnormal Loads Routes:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/360533/High_and_Heavy_Load_Grids_Map_for_Abnormal_Loads.pdf

[11] Congleton relief road scheme

http://cheshireeast.gov.uk/highways_and_roads/roadworks/major-projects/congleton_link_road/congleton_link_road.aspx

[12] Middlewich eastern by-pass scheme

12.1. http://cheshireeast.gov.uk/highways_and_roads/roadworks/major-projects/middlewich-transport-consultation/middlewich-transport-consultation.aspx

12.2 http://cheshireeast.gov.uk/council_and_democracy/council_information/media_hub/media_releases/58m-middlewich-bypass-plans-approved-by-government.aspx

12.3. http://www.cheshireeast.gov.uk/highways_and_roads/roadworks/major-projects/middlewich-transport-consultation/middlewich-transport-consultation.aspx

13. Transport for the North – Strategic Transport Plan Draft - January 2018

<https://transportforthenorth.com/stp/>

14. Cheshire & Warrington LEP Sub-Regional Transport Strategy Report

<https://drive.google.com/open?id=1Wizlu6iGXh-iYXrIKfSr3yvkH8pPdLKy>

15. 85th Percentile speed

This is not always the easiest concept to understand, but at a given location it is the speed that 85% of drivers do not exceed. Conversely of course, 15% of drivers do exceed this speed.

Accident risk is considered a mix of speed and competence, with the risk increasing as speed rises or competence falls. Based on extensive research, the 85th percentile speed is considered the optimum speed value for any given location under normal conditions.

If the results of observations indicate that the 85th percentile speed value is higher than the speed limit, then there is a case for action, such as greater enforcement, a speed camera or road engineering solutions.

Note: the actionable speed limit is usually defined by the Police as: Speed Limit +10% +2mph (so in a 30mph zone, actionable speed is defined as $30 \times 10\% + 2\text{mph} = 35\text{mph}$).

If the 85th percentile speed exceeds 36mph in this example, there is evidence for further action to be taken.

For more information see:

<http://www.safespeed.org.uk/speedlimits.html>

<http://www.lsp.org/pdf/troopc85thSpeed.pdf>