

APPENDIX B- Detailed summary of consultation feedback, officer responses and updated recommendations

6. Summary of consultation feedback and officer responses

6.1 Consultation Overview

Public consultation is one of the key steps in the development of a Transport Strategy, helping the County Council refine proposals and strengthen the future case for funding. Between 16th January and 24th March 2017 the County Council carried out a consultation and engagement exercise to seek feedback on the key transport issues and recommendations initially put forward within the Study.

The public and key stakeholders were invited to submit views via an online questionnaire, which incorporated direct feedback and open ended contributions to support and refine those improvements/solutions included within the Study. Key demographic information was gathered, ensuring the County Council's commitment to ensure that its services, policies and practices are free from discrimination and prejudice.

Consultation contributions were also welcomed via written representation, paper copies of the questionnaire and via a designated email box. A public exhibition was held in January 2017 with more than 600 people attending. Following this, over 150 responses were received to the consultation, predominantly via the online questionnaire.

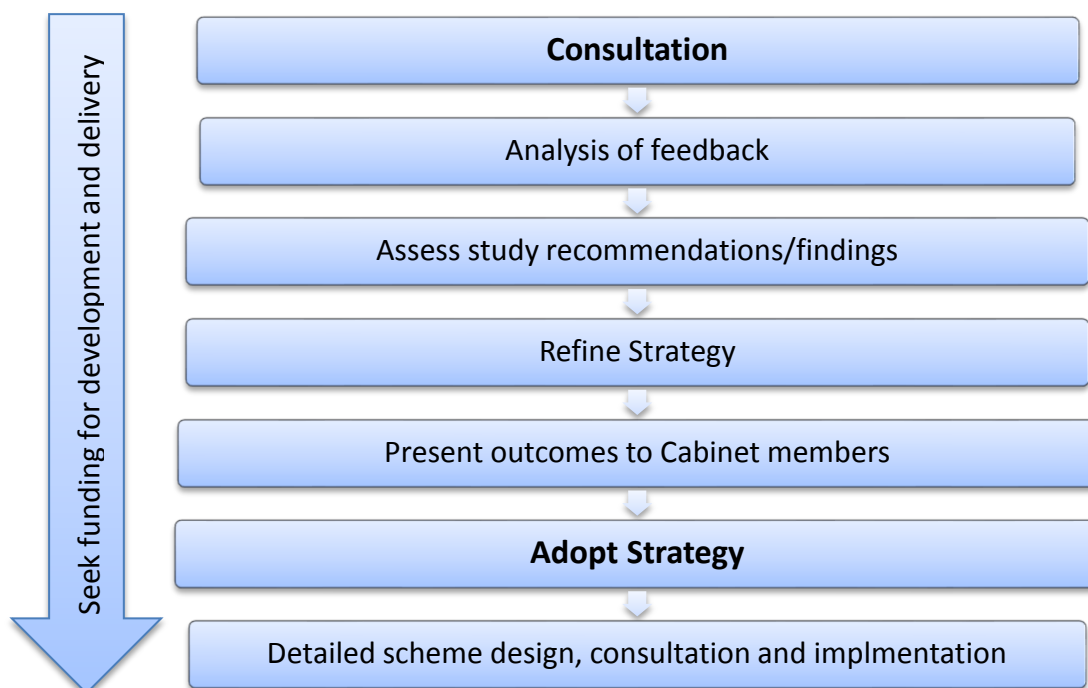
In addition to the responses received from the members of the public, responses were received from the following organisations:

- Market Harborough Civic Society
- Welland Park Academy
- Adam Smile Trust
- Harborough District Council
- Highways England
- Northamptonshire County Council

The following sections outline the main comments and issues raised during the consultation period together with considered officer feedback and analysis.

In line with the process identified below the outcomes of the consultation exercise will be reported to the County Council's Cabinet and approval sought for the adoption of a Transport Strategy. It is important to note that proposals

within the Strategy are still subject to further design and consultation and there will be further opportunity to feed into the development and delivery at a later date.



6.2 General Public and Stakeholder Opinion

Overall 73% of respondents agreed that the main transport issues had been identified, a clear indication of the adequacy of the Study which will be refined as part of the consultation feedback, imperative to development of a sound and resolute Strategy.

Of the remaining 27%, 9% of respondents were neutral neither agreeing nor disagreeing with the proposals. 11% of respondents tended to disagree and 7% strongly disagreed with the proposals. There were instances where respondents disagreed that the Strategy correctly identified the key issues, which upon further analysis, revealed these had actually been considered by the County Council but due to the level of detail within the consultation were not evident.

In cases where respondents strongly disagreed with the Strategy, additional considerations were put forward during the consultation which the County Council have considered and in some cases included within the refined Strategy.

The consultation also invited feedback on a package of proposed transport recommendations, which for presentational purposes were divided into three broad categories based on their cost, complexity and potential impact on traffic;

Category 1: improvements to the existing road network, with roads traffic routing remaining broadly unaltered.

Category 2: improvements that result in changes to the way traffic would move around the town.

Category 3: introduction of a southern relief road.

Category 3 was the preferred solution with 40% in agreement with category 1 and 2 both split 30% each.

Opinion regarding the effectiveness of category 1 measures proposed in isolation, without category 2 or 3 measures, was split 50:50. Overall support for the measures is evident, but public opinion weighted towards the necessity for additional complementary measures such as those in category 2 and 3 is clear.

Opinion with regards to the effectiveness of category 2 solutions proposed in isolation was split 70:30 with the majority concurring with the effectiveness of those measures and recommendations to target the specific transportation issues.

Category 3 measures were supported, with public opinion 80:20 in support of the measures in addition to Category 1 and 2 measures.

Overall the majority of respondents preferred a combination of all three categories as a package rather than just one particular set of measures in isolation.

6.3 Key Feedback

The provision of measures in isolation is clearly a public concern. The County Council recognises this concern and analysis to date has demonstrated the requirement for a holistic approach to improving network 'efficiency'.

By adequately accounting for 'efficiency' and considering the network as a whole and by the implementation of a complimentary package of measures, the investment of funds is better spent. This also aids the understanding of the long term costs of maintenance and management of the network, ensuring long term value.

The consultation invited feedback on the primary transport issues within Market Harborough. This predominately focused on the levels of congestion, the overall perceived inadequacies of the network to accommodate growth, the inappropriateness of traffic (HGVs) in the town centre, the local pinch-

points and the major infrastructure constraints such as the Rockingham Road rail bridge, areas which were central to the draft Study.

It is equally important to understand issues which had been not put forward as recommendations in the Study but were identified as known local issues following the consultation. These could either have been outside the scope of the Study but remain relevant, beyond the geographical analysis area or had been considered more widely but not included as specific detailed recommendations/ solutions at this stage.

A number of additional issues and considerations were identified in the consultation including concerns relating to air quality (AQ), local rat-running, the potential for pedestrianisation of the town centre, the provision of Park-&-Ride on the periphery of Market Harborough, the Kettering Road rail bridge and the reintroduction of the right-turn at the A6/ Kettering Road junction.

Additional solutions to the widely reiterated perception of congestion within the town centre, the identification of solutions for specific problem junctions and the renewal, improvement and extension of the cycling/ walking network were also offered.

6.4 Officer Responses

1. Issues(s)

Parking – outside all schools

Officer Response(s)

The road network that serves schools can at peak times be marked by congestion as well as the perception of creating road safety hazards; this is very much a driver behaviour issue and is not unique to Market Harborough. Road safety is an important consideration and is fundamental to the development of the Transport Strategy, however accident data in the town suggests that there is no obvious correlation between school parking and road casualty rates particularly those associated with children.

Within its budgetary constraints, the County Council will continue to manage school parking issues by working in partnership with schools, parents, local resident and Members, and the Police. Where opportunities arise as part of the Strategy, the County Council will look to incorporate any measures that may mitigate parking issues as part of other identified proposals within the vicinity of schools.

2. Issue(s)

Parking – a) Specific on-street sites such as Logan Street /Gardiner St/Knoll Street, East Street, Nelson Street, Connaught Road, Kettering Road, Walcot Road, where parking concerns were raised in addition to those areas highlighted in the detailed Strategy.

b) Not enough provision of off street car parking.

Officer Response(s)

- a) The on-street locations suggested in the consultation will be included within the future analysis which will seek to provide adequate levels of parking based on the bespoke demand and needs of the market town.
- b) The provision and management of off-street car parking is the responsibility of Harborough District Councils within the framework of their Parking Strategy, 2016; this is a comprehensive and detailed analysis of current and future demand, and offers a number of key recommendations and areas of additional analysis to ensure that future demand is satisfactorily met.

3. Issue(s)

Junctions/ congestion - Lack of apparent synchronisation between junctions; Kettering Road Rail Bridge and adjacent junctions – Gores Lane and Bellfields, St Marys Road /Gt Bowden Road and Northampton Road / Scotland Road.

Officer Response(s)

Efficient junction performance clearly plays a pivotal role in the movement of goods and people, which in-turn aids economic productivity. The performance of a single junction in isolation is limited to the effects of traffic at one particular location. As a consequence, the mitigation required may not account for the junctions downstream or traffic movement through the town centre, both of which affect the performance of the network as a whole.

The analysis of 'efficiency' must therefore include detailed analysis of the movement between junctions, the effects of queuing and delays on links and the accessibility for pedestrians/ cyclists.

By adequately accounting for 'efficiency' and considering the network as a whole, the investment of funds is better spent. This also aids the understanding of the long-term cost of maintenance and management of the network.

The adequacy of the next stage transport analysis is imperative to the development of a sound and resolute Strategy. The concerns about the traffic impact and additional junction analysis will be taken forward as part of future analysis. Additional testing to identify solutions as part of the proposed localised microsimulation transport modelling analysis will better account for junction synchronisation, the effects of junction interaction and further the overall promotion of network efficiency.

4. Issue(s)

Rat running traffic - Affecting Scotland Road, Western Avenue, Alvinton Way, Fernie Road, Bath St and Ashley Way.

Officer Response(s)

So called 'rat runs' are an inevitable characteristic of a congested urban highway network. Critically, the main reason for this congestion is a greater level of demand and higher frequency of junction use. In the case of Market Harborough town centre, this is further compounded by 'blocking back', this being the interaction between junctions as a result of queuing and delays. This congestion governs the journey times and routes taken by drivers.

The response by network users to congestion and delay is often the rerouting of traffic, as drivers seek to avoid known congestion hotspots by taking an alternative route on roads often less suitable, encapsulated by residential areas and not intended to be used as a through-traffic route.

The root cause of 'rat running' is not itself congestion at junctions, this being the outcome of the deterioration of network performance as a result of a greater level of demand to a certain location or facility, such as schools, places of works and local amenities. The town centre itself is a major attractor of trips due its vibrant and diverse amenities, employers and local population, characteristics which are important to preserve. Greater levels of demand, congestion and consequential 'rat running' highlight the degree of attention that is needed to maintain flow and safety.

Category 1 and 2 measures, which seek to greatly slow down the rate of junction deterioration and provide more suitable routes for drivers, will enhance the characteristics of the network thereby seeking to reduce the rate of which drivers seek alternative 'rat runs'.

5. Issue(s)

Air Quality concerns - Air pollution from cars idling while in queues.

Officer Response(s)

In Leicestershire air quality management is the statutory responsibility of District and Borough Councils. Whilst the County Council has no statutory duty to address air quality, as the Local Highway Authority (LHA) the County Council can help District / Boroughs identify and develop mitigation measures where air pollution is attributable to the local road network.

Based on the current air pollutant data collected around the town, HDC do not class Market Harborough as an Air Quality Management Area (AQMA) and therefore HDC have not identified any specific mitigation action. Nonetheless, the Strategy is likely to have a positive impact on air quality, through the promotion of more sustainable modes of transport and through seeking to mitigate junction delay and stationary vehicle queues.

6. Issue(s)

Issues beyond the scope of the Study- Extra traffic as a result of development beyond Market Harborough, junctions on the A5199, Lubenham bypass and pedestrian/ cycle links to Braybrook village.

Officer Response(s)

Within the context of the draft Study there is a limit to the geographical area analysed. To inform the Study area itself, discussions were held with multi-disciplinary colleagues at both the County Council, Harborough District Council and in the local community with key stakeholder representatives to understand local issues.

The County Council has used the best and most up-to-date analysis tool, the Leicester & Leicestershire Integrated Transport Model (LLITM) along with the integration of planning, socio-demographic and socio-economic data to best inform the baseline situation and future year analysis within the area of analysis.

This assists in the quantification of key inputs, such as growth rates, housing and social needs, to inform real, bespoke and relevant solutions to ensure that a resilient network Strategy can be developed and implemented.

By understanding the *demand*, which can be quantified in levels of trip making and its associated impact on the network, the draft Study has identified areas/ initiatives where some level of investment can be considered to improve the performance of the network, or guard against its rate of deterioration.

In terms of development beyond Market Harborough, the Highway Authority, a statutory consultee in the planning process, are charged with the responsibility to manage and maintain the County's highway network. All promoters of

development proposals across the district have to consult the Highway Authority and agree a scope of analysis which would include any problematic junction relevant to the specific application which may have been beyond the scope of the Study.

7. Issue(s)

The Study credentials - Doubt over the effectiveness of the Study and the knock-on impacts of increased congestion.

Officer Response(s)

The effectiveness of solutions and the testing of the subsequent knock-on-effects of rerouting traffic away from the town centre, have been tested using the Leicester and Leicestershire Integrated Transport Model (LLITM). This is measured against stringent criteria and parameters set by the Department for Transport (DfT) on behalf of central Government. All measureable criteria have been met in accordance with WebTAG, the appraisal framework set out by the DfT.

As a strategic model LLITM is the best tool to account for interrelated transport issues. Future investigations will involve microsimulation modelling; this is the dynamic modelling of individual vehicle movements within a system of transportation facilities. Microsimulation allows more detailed testing and will account for the adequacies of the proposed improvements, the effects of junction interaction and will allow for a process of refinement of the Strategy to allow the best possible solutions and value for money.

8. Issue(s)

Welland Park Road - The appropriateness of the road to be upgraded in light of the existing geometry, road width, the school and associated vulnerable road users, at grade crossing facilities, school peak time parking and speed management should traffic calming be removed.

Officer Response(s)

The consideration of upgrading Welland Park Road to the A4304 and the respective downgrading of Coventry Road has been explored as a concept and evidence would suggest that Welland Park Road is the more strategically favourable route of the two, particularly in light of the traffic forecast predictions.

The analysis has demonstrated that in terms of traffic volume, the two routes currently carry a similar level of traffic at the peak times with Welland Park Road anticipated to exceed Coventry Road by approximately 30% in traffic volume by 2031.

By way of comparison, Coventry Road is predicted to experience an overall decrease of traffic in the future year scenario of around 300 traffic movements per day, compared to the increase of traffic on Welland Park Road. This demonstrates re-distribution of traffic from Coventry Road onto Welland Park Road.

Traffic re-distribution can occur for a number of reasons and a general rule in transportation is it is rarely a single issue in isolation. Route choice and driver behaviour are closely associated with the desirability of the route. This relates to the length of the link, the journey time and the characteristics of the route such as the number of at-grade crossings, traffic calming, and the number of accesses, all of which effect journey time and can deter drivers from the route.

As part of the Study, a detailed analysis of the road features, such as the number of junctions, accesses, crossings and bus stops between Coventry Road and Welland Park Road was undertaken. The analysis indicated that Welland Park Road is generally a more favourable route than Coventry Road, with less imposing features such as those detailed above.

The proposal generally received positive feedback during the consultation period however from officer discussions with Welland Park Academy and with members of the public at the public exhibition it is recognised that there are understandable concerns about the appropriateness of the route.

Rather than to simply designate the status of a route, it will be essential to introduce a number of complimentary measures required to facilitate such a reclassification. Moreover, this is not to say that Welland Park Road does not suffer from some congestion and delays, and clearly very careful consideration must be given to the requirements of the existing frontagers.

In addition, any proposal of road reclassification would be accompanied by a review of the road's geometrical features, additional road safety analysis and continued liaison with stakeholders including Welland Park Academy and local residents. Moreover, the viability and benefits of any proposal of reclassification is subject to further detailed analysis.

A more detailed assessment of the complimentary measures required will be undertaken ensuring the important characteristics of road and current functions are not unduly or unfairly impeded by any such proposal to reclassify the road. Future investigations will involve microsimulation modelling of individual vehicle movements to gauge the impact on Welland Park Road and the surrounding road network /junctions.

9. Issue(s)

Rail bridge – Rockingham Road Rail Bridge.

Officer Response(s)

The draft Market Harborough Transport Study included consideration of increasing the clearance (height) of the 'low' rail bridge on Rockingham Road, as part of the Network Rail led project of localised rail improvements.

A feasibility report was commissioned to understand the costs and implications of increasing the clearance. The report identified that the mandatory standard headroom at the bridge could be achieved but at considerable cost, difficulty, disruption and risk. The risks pose a significant level of financial uncertainty. The analysis undertaken so far shows that there is very little prospect of the scheme receiving national funding.

It is important to stress that these findings do not hinder the progression of measures that aim to redirect HGVs to more suitable routes. These measures also help to tackle congestion and reduce the volume of traffic through the town centre. The County Council will continue to explore potential solutions to tackling congestion in the town centre.

Should alternative funding sources become available in the future, such as developer contributions from planning development, bridge alteration may be considered again in the future.

10. Issue(s)

Rail bridge – Kettering Road Rail Bridge- Alteration to the clearance at the bridge and as a congestion hotspot.

Officer Response(s)

The County Council has commissioned a feasibility report to understand the costs and considerations of altering the clearance at the bridge, which would involve either the raising of the bridge deck and associated structures, or the lowering of the carriageway (or combination of both).

Such a major intervention requires central government funding which requires an evidence led case, based upon a stringent appraisal. The analysis to date has shown very little prospect of national funding opportunities which such a major intervention will require.

The Kettering Road rail bridge was identified to be a known congestion hotspot. The potential to identify a solution and develop a mitigation solution is being considered by the County Council. Future investigations will involve microsimulation modelling of individual vehicle movements to gauge the

impact of a solution on Kettering Road and the surrounding road network /junctions.

11. Issue(s)

Cycling route – Consideration of the AdamSmile proposal.

Officer Response(s)

The Strategy will investigate walk/ cycle routes connecting Market Harborough and Lubenham, in combination with measures to improve the existing walking and cycling infrastructure.

12. Issue(s)

Pedestrian - Provision of dropped-kerb crossings, improved crossing on Leicester Roar (near to the hospital) and more crossings on the High Street.

Officer Response(s)

In addition to the walking /cycling analysis and recommendations put forward to date, further consideration will be given to determine the suitability of additional pedestrian crossings within the town centre as the Strategy develops and is delivered.

13. Issue(s)

Pedestrian - Pedestrianise town centre

Officer Response(s)

A number of suggestions to pedestrianise the town centre were received during the public consultation.

The Transport Strategy aims to enhance the vibrancy of the market town by taking a more balanced approach through the implementation of walking and cycling routes together with proposals to assist motorists making it an attractive place for commuters, employees, residents and tourists alike thereby sustaining the local economy and increasing footfall in the town centre whilst protecting local characteristics of the market town.

Additionally, Category 2 improvements such as the rerouting of traffic away from the town centre will help reduce emissions and quieten the town centre considerably adding to the attractiveness of the town centre.

14. Issue(s)

Junctions/ Congestion - The provision of a park-and-ride on the periphery of the town.

Officer Response(s)

Park-and-ride schemes are traditionally a form of an integrated transport design which allows private transport users to park their vehicles at a car park and travel into the central area using a public transport mode.

Based upon our experience of park-and-ride schemes within the County, it is unlikely that such a purpose built facility would be viable based on the current and forecast population of Market Harborough. The traffic collection data analysis, which is an integral component of the Study, demonstrates the majority of all trips are internal to external- a trend forecast to continue with 1/3 of trips being internal *local* trips. This does not correlate with a traditional form of park-and-ride which would require a daily import of people into the market town.

In the context of Market Harborough, it is felt that the Transport Strategy through its proposed package of measures will sufficiently aid network improvement and management therefore negating the need for a dedicated Park and Ride.

15. Issue(s)

Junctions/ Congestion - Remove traffic signals at junctions and replace with mini roundabouts.

Officer Response(s)

The County Council would not necessarily advocate the wholesale replacement of traffic signals with mini roundabouts due to pedestrian crossing demands, junction visibility issues and potential difficulties for side road traffic. Having said that, in certain locations there may be some merit, particularly where there is a series of traffic lights in close proximity. Again, as part of the Strategy development the County Council will look to develop a detailed microsimulation transport model which will help model/test the impact of removing traffic lights.

16. Issue(s)

Junctions/ Congestion - Rebuild the bridge over the river beyond Tesco's car park to be suitable for motor traffic.

Officer Response(s)

The bridge provides a pedestrian and cycle crossing over the River Welland from Walcot Road to the supermarket car park. Walcot Road is a residential no-through (vehicular) road which leads south to Welland Park Road to the predominately residential area which encapsulates the south of Market Harborough. This large residential area to the south creates a pedestrian and cycle demand to a number of amenities to the north, as well providing crossing into the town centre which is severed by the River Welland.

To modify this bridge to permit motor vehicles, would lead to a number immediate challenges. In the first instance, the supermarket car park is entirely controlled by a third party and is consequently not part of the local highway. A motor link would essentially create a link between Walcot Road to Coventry Road, via third party land (the car park). Third party land is entirely outside the control of the County Council and District Council.

Consideration has also been given to how desirable a vehicular route via Walcot Road would be. Walcot Road is not suitable to carry a greater volume of traffic both in terms of the geometry and the primary residential function further diminishes any realistic prospect of this bridge being opened up to vehicular traffic.

17. Issue(s)

Junctions/ Congestion - More yellow boxes junction markings required at a number of junctions.

Officer Response(s)

As part of the refinement of the analysis so far undertaken, the Authority will analyse the extent of the problem of blocking at local junctions which could be mitigated by the provision of yellow box or keep clear markings.

18. Issue(s)

Junctions/ Congestion - Provision of traffic signals at the Northampton Road/Scotland Road junction.

Officer Response(s)

The provision of traffic signals at the Northampton Road/Scotland Road junction has not been identified in the Study based on the evidence derived from LLITM which provided an indication of the current and future most congested parts of the network.

The proposed town centre microsimulation modelling should provide further evidence of the necessity for enhancement at this junction; however analysis to date has not demonstrated such a requirement.

As well as considering traffic volume and other matters relating to the engineering deliverability of traffic signals, the appropriateness of any junction intervention would have to be carefully considered, to avoid the increased use of Scotland Road as a through route.

19. Issue(s)

Junctions/ Congestion – Extend proposed relief road from A508 to A4304, suggestion that this should be funded by £5k roof tax through planning process.

Officer Response(s)

The County Council commissioned a high-level economic appraisal report to estimate the Benefit-Cost Ratio (BCR) of the Market Harborough SRR to give an early indication of its viability. The appraisal report also provides further detail of the potential SRR traffic, and in particular, the proportion of through traffic forecast to use it. In light of the amount planned development, developer funding would unlikely fund the entire cost of the scheme even at the suggest £5,000.00 per dwellings.

Having undertaken an economic assessment of the Market Harborough SRR, the scenario produces a BCR of 0.28. This currently provides poor value for money as defined within WebTAG, the economic appraisal guidelines as set by Central Government. The analysis to date has shown very little prospect of national funding opportunities which such a major intervention will require.

Demand for the route is low and an extension to the length of the road would need to proportionately increase demand relative to the cost. This is therefore a longer term aspiration of the Strategy.

Developer contributions are a key part of funding for the Strategy as a whole and the County Council will therefore continue to work closely with Harborough District Council to secure potential funding where the planning system allows.

20. Issue(s)

Junctions/ Congestion – Exclusion of all private vehicles except buses and taxis in The Square.

Officer Response(s)

The provision of measures to alleviate congestion and unnecessary traffic within the town centre are a priority of the Strategy. Analysis to date has not

revealed a requirement to totally exclude all private vehicles from the town centre.

A number of recommendations will be actively pursued including incentives to encourage a modal shift away from car use, enhancement of the walking and cycling network, parking controls and measures to reduce the through-movement of traffic in the town centre.

21. Issue(s)

Junctions/ Congestion/ Parking Provision – Logan St/ Gardiner St/ Knoll Street and Patrick Street/ Granville Street/ Gladstone Street/ Cross Street one way and Bowden Lane /Doddridge Road/Roman Way/The Broadway/ Connaught Road/ Clarence Street one way.

Officer Response(s)

Any proposal to introduce a one-way system is considered against its necessity, the effects/ consequences of such a system and other local considerations. The introduction of a one-way system in an entirely residential area could present significant disadvantages for residents due to the indirect routes which would then have to be taken. Speeds in one-way streets are often recorded as higher than comparable two-way sections of road which would also be a concern given the primary residential function of these roads. The introduction of further one-way systems which incorporate a number of residential streets in the town is not considered to be a viable solution to the issue of congestion or parking provision at this time. However the proposed microsimulation transport modelling should provide further evidence for the necessity for one way systems; however analysis to date has not demonstrated such a requirement.

22. Issue(s)

St Mary's Road one-way option.

Officer Response(s)

Measures to actively reduce the amount of through-traffic from the town centre have been recommended within the Study. The analysis to date has shown that a system of reclassification and redistribution of traffic, as well as a number of accompanying measures, results in a reduction in traffic travelling through the town centre.

A number of mitigation options have been tested, and consideration of the potential introduction of a partial one-way system on St Mary's Road to help

reduce traffic impacts within The Square, will be tested further as part of the next stage of analysis.

As part of the consultation process, the suggestion to ban the right-turn on Northampton Road onto St Mary's Road to achieve a reduction of traffic travelling through the town centre was put forward. Not without its potential merits, the St Mary's one-way options are conducive and necessary to support road reclassification, which accounts for the greatest level of demand through the town. This is not to discount the potential for such a proposal to ban the right-turn which will be included in the future micro-simulation analysis.

23. Issues(s)

Public Transport– Increase service provision

Officer Response(s)

Localised public transport infrastructure improvements have been recommended as part of the Study. Subject to funding, a strategic investment programme includes the introduction of new bus stops, improved provision of *smart* technology such as real time display information to encourage bus patronage which would in turn strengthen the viability of commercially operated services.

By enhancing viability, this acts as an incentive to commercial operators to increase frequency and extend operating hours. The County Council currently subsidises a number of services and invests in services which may not be commercially attractive but are recognised as socially necessary.

The County Council recognises bus passenger transport as a community priority and will continue to enhance the attractiveness for commercial investment and infrastructure enhancements as part of the Strategy.

24. Issue(s)

HGVs– Banning HGVs from town centre

Officer Response(s)

The movement of HGV traffic has been considered in the Strategy, to avoid where possible HGVs using inappropriate roads within the town.

Market Harborough benefits from a range of distinctive and flourishing independent retailers in addition to a number of recognised high street retailers, which are valued by residents and visitors alike. Due to the loading /servicing requirements of these businesses the County Council are not seeking to ban all HGV movements in the town centre. However due to the

perceived environmental constraints, the Strategy does provide Category 2 improvements which look to redirect unnecessary movements away from the centre where possible, which will benefit all network users. Alongside this, the Strategy is looking to make local junction improvements to ensure the efficient movement of traffic through the centre of Market Harborough, therefore limiting the impact of stationary traffic on the historic and idyllic environment.

HGV traffic is often cited as a cause of damage to highway infrastructure, presenting an unnecessary risk to cyclists and pedestrians, as well as being generally an imposition on the amenity and character of an area. Leicestershire County Council, as Highway Authority, has a well-established practice to maximise the use of A and B roads for HGV traffic, reducing the likelihood of traffic using unsuitable routes or those with established weight restrictions.

25. Issue(s)

Other/ Misc - Remove or reduce height of all speed humps in town.

Officer Response(s)

Whilst it is understood that speed humps will never be universally popular with all road users, they are not the only measure that the County Council introduces to manage vehicle speeds. Their use forms part of the County Councils wider approach to traffic and network management. The County Council recognises that speed humps are an extremely effective means of controlling vehicle speeds and they play an important role in helping to reduce the likelihood and severity of collisions.

In Leicestershire the design of speed humps, the consultation process and their implementation, is based on government guidance and national legislation.

The justification for promoting speed humps at a particular site can be varied. It could be to address an accident problem, create a safer cycling route, or reduce speeds near a new junction or a school etc. Many schemes around the county have been introduced over the years following local concern over excessive speed. Requests for traffic calming were then investigated against the assessment system in place at the time; such assessment systems generally took account of traffic speeds, volume, accidents and the type and number of nearby premises (e.g. schools, shops, residential).

Whilst the reasons for introducing speed humps can be varied, schemes can only be introduced following an extensive consultation exercise. This would normally involve letters to local residents, possibly a public exhibition; and also statutory public notices placed on site and advertised in the local

newspaper. Also, the emergency services and bus companies would have an important say in the appropriateness of a particular scheme. All comments made on a scheme are fully considered before a decision is taken on whether to implement it.

Speed cushions and tables are designed to national standards and guidance, so that they can be traversed by all vehicles conforming to manufacturer's specifications. DfT research has demonstrated that when negotiated at sensible speeds, speed tables and cushions do not cause damage to vehicles.

The County council will continue to carefully consider the use of speed humps through the delivery of traffic and network management measures.

It is important not to lose sight that speed humps make a big difference to road safety and therefore their removal from any existing scheme would require very strong consideration and would involve full consultation. Presently we have no specific plans to remove safety measures like speed humps from roads in Market Harborough.

26. Issue(s)

Other/ Misc - Reopen the right turn from A6 into Kettering Road.

Officer Response(s)

In 2012, due to a history of collisions associated with right turn manoeuvres at this junction the County Council carried out physical works to prevent the uncontrolled right turn manoeuvre from the A6 into Kettering Road.

More recent analysis undertaken by the County Council has identified a degree of increased driver frustration as a result of approximate 4km diversion for right-turners onto Kettering Road and increased *rat-running* as a result of drivers rerouting via Ashley Road and Gores Lane to bypass the junction in its entirety.

Moreover, there is concern that drivers are undertaking U-turns, just after the physical build-out then proceeding on Kettering Road, a manoeuvre that is not only banned by Order but potentially increases the risk to the travelling public. Physical evidence of this practice is evident on the carriageway.

The County Council is taking forward the potential of reintroducing the right-turn separately from the Strategy as part of a developer led scheme. The Authority has compiled up-to-date collision data and is in the process of considering a number of options including the potential of implementing a roundabout or traffic signals.

Any potential enhancement would need to address the risks associated with the right-turn movement as well as the implications which have arisen as a result of the closure of that movement.

6.5 Updated Transport Study recommendations

Background

The consultation exercise focused primarily on key stakeholder feedback/workshop sessions, along with wider public consultation. Following the consultation, a number of solutions/considerations have been identified.

The consultation and stakeholder engagement exercise allows for key inputs into the work already undertaken, so that the future Strategy better reflects the needs of the local community and key stakeholders.

This section details the outline recommendations following the consultation and subsequent analysis undertaken by the County Council regarding the feasibility of the Rockingham Road rail bridge alteration and the Southern Relief Road (SRR); the two most costly and complex highway interventions included within the Study.

The updated Study is detailed below and where necessary, changes to the proposals have been made following the consultation process, the details of which have also been documented. This section should be read in conjunction with the preceding chapters of this document.

For ease of understanding, the summary section includes all recommendations which form the updated Strategy.

Emerging Outline Recommendations

The draft Study initially made 16 recommendations, which form the basis of the draft Transport Strategy. These were broadly based around the following proposals, which still remain central to the proposals to be taken forward:

- a) encouraging walking, cycling and public transport use;
- b) improving key junctions and general traffic flow around the town;
- c) possible public realm enhancements; and
- d) changes to the way that traffic is routed through and around the town.

Following the analysis of the consultation feedback and subsequent analysis undertaken by the County Council, a total of 18 recommendations are put forward which form the basis of the Transport Strategy for further refinement and development of transport proposals for Market Harborough. In some cases, the previous recommendations have been altered to include the consultation comments rather than being put forward as new recommendations in their own right.

A breakdown of these amendments is detailed below:-

- Capacity / Congestion Improvements; two additional recommendations
- Network Management and traffic routing; one recommendation removed from the Strategy
- Sustainable transport infrastructure / behaviour change initiatives; two additional recommendations
- Traffic Management Improvements; one additional recommendation

Each of these areas is explored in detail below.

Capacity / Congestion Improvements

This section should be read in conjunction with Section 4.6 of the Study document.

The extensive data gathering exercise and sectoral analysis which underpins the Study assists in the quantification of key inputs, such as growth rates, housing and social needs, to inform real, bespoke and relevant solutions to ensure that a resilient network Strategy can be developed and implemented.

By understanding the *demand*, which can be quantified in levels of trip making and its associated impact on the network, the draft Study has identified areas/initiatives where some level of investment could be considered to improve the performance of the network or guard against its rate of deterioration.

The traffic impact analysis has revealed the following key headline findings for peak time traffic movements: -

- Traffic volume in the town is forecast to increase by 24% between 2011 and 2031;
- Greatest proportion of trips (57%) on the network are those going from within the Study area to outside of the area, vice versa (internal to external and external to internal);
- Presently 1/3 (36%) of trips within the Study area over the peak hours were internal trips (internal to internal);
- Presently 'through' traffic (traffic using the roads in the town to get to/from destinations outside of the town) accounts for 10% of trips;
- The B6047 and A4303 presently (The Square- the nucleus of the town) carry in excess of 13,000 vehicles per day;
- The future of internal trips, as a proportion of total trips, drops to 25% of all journeys. However the absolute number of trips remains high (4,000 over the peaks); and

- In the future the frequency of internal/ external trips undertaken increases as a proportion to 68%.

This highlights the need to form measures that can successfully target the different types of trip making in Market Harborough. Promoting measures which encourage alternatives to car use to achieve an overall reduction in the number of car journeys by enhancing walking/ cycling and PT infrastructure are most effective when considering internal trip making.

However, sectoral analysis shows the majority of all trips are internal/ external, a trend which is forecast to continue. The effectiveness of such measures on these trips is limited due to complexity and distance of that type of trip making.

As a consequence, capacity and junction enhancement, in combination with wider sustainable transport principles, is required to ensure the market town can continue to thrive in light of forecast predictions.

The following additional recommendations as a result of the consultation will be taken forward as part of the emerging Transport Strategy: -

1. County Council will analyse the extent of the problem of blocking at local junctions which could be mitigated by the provision of road markings; and
2. The microsimulation analysis will model/test the impact of removing traffic signals or turning off certain sets of signals during off peak periods.

Yellow box markings & Road Markings

The provision of yellow box junction markings is considered in terms of the suitability, the legal criteria and delivery. This is on a case-by-case basis and is not applied uncritically. This is done so not to preclude best engineering judgment and application of standards, which could otherwise create the opposite effect to that which is being sought as a solution. For example, the widespread use of yellow box markings in high concentration within a certain area can devalue their effectiveness as drivers become all-to-well familiar with their presence on the network.

By entering the markings when the drivers exit is blocked by stationary vehicles, whether these are ahead in the road or on a side road, drivers commit an offence. The provision of such markings do not necessarily require a Traffic Regulation Order, however the local Constabulary is always consulted.

The suitability of such markings is measured against a number of criteria and factors which may influence their installation such as the type of junction (whether signal controlled for example), blocking back from a junction ahead and traffic volume.

To inform the Study, a number of traffic surveys and other data sources were collected and analysed. This will allow the County Council to assess the suitability of junctions for this type of intervention but also to what alternatives, and potentially more effective measures, could be considered. Consideration towards road safety, the needs of pedestrians and cyclists will be central to the future analysis. Additional analysis will be taken forward as part of the Strategy.

Removal of traffic signals at junctions and/ or temporary signals

The County Council would not necessarily advocate the wholesale removal of traffic signals or the switching off of signals off peak. This is due to pedestrian safety concerns, junction visibility issues and potential difficulties for side road traffic. Having said that, in certain locations there may be some merit, particularly where there is a series of traffic signals in close proximity. Again, as part of our work identifying potential measures for the town, the County Council are also investing in the development of a detailed transport model which will help the Authority safely model/test the impact of removing traffic signals or turning off certain sets of signals during off peak periods. This also provides the evidence base to support future funding bids.

Off peak trip movements can be quite different, in terms of their origin/destination and purpose, compared to the peak times and the need to thoroughly test a range of proposals to enhance network efficiency and junction synchronisation needs to adequately account for this.

Future considerations towards network improvements involve the potential to link traffic signals together on an interconnected network. Timings are then automatically adjusted across the network to meet demand and to provide more green time in favour of the main roads. It does not mean that there will never be any congestion but the system is designed to minimise overall levels of congestion across the network of junctions and make better use of the existing capacity of the road network.

Network Management and Traffic Routing

By far the two most costly and complex interventions identified within the Transport Study relate to network management and traffic routing alterations; namely the Rockingham Road rail bridge modification and the provision of the Southern Relief Road (SRR).

The County Council has commissioned two further studies to analyse the feasibility of the Rockingham Road rail bridge alteration and the SRR given the complexity, engineering constraints and cost associated with these two major interventions.

Rockingham Road Rail Bridge

The derivation of the initial concept to alter the clearance arose within the Study following liaison with Leicestershire Constabulary and Aone+, who manage the A14 on behalf of Highways England.

High-sided vehicles striking the low bridge on Rockingham Road, or RTCs on the A14 between junctions 2 and 3 currently force vehicles onto the Market Harborough network. Without adequate signing to direct those motorists back onto the strategic road network, it is likely that a proportion of that traffic could use inappropriate/unsuitable routes through the town, including residential areas.

In the absence of emergency diversion routes (EDR) signing, the low bridge on Rockingham Road would be particularly vulnerable due to its location on the A4304, as a high proportion of the diverted traffic would likely be Heavy Goods Vehicles (HGV) and may be reliant on satellite navigation devices that could automatically select Rockingham Road due to its status.

The initial concept then is to alter the clearance at the bridge to the mandatory national standard, 5.03m, to allow all high-sided HGVs from the A6 to access the south side of the town and provide the basis for more suitable diversion routes following incidents on the A14.

The potential consideration to alter the clearance at the 'low' rail bridge at Rockingham Road has been identified to form part of the Network Rail led project of localised rail improvements which at the time was considered an appropriate platform to integrate the potential bridge alteration.

The feasibility report provides an understanding of the costs and considerations of altering the clearance at the bridge, which would involve either the raising of the bridge deck and associated structures, or the lowering of the carriageway (or combination of both).

The maximum achievable headroom at the bridge is some way off the national mandatory standard meaning that if any deck replacement works were to be carried out alone, the bridge would still have to be signed as a 'Low Bridge'.

The consequences of the bridge, following alteration, still being classified as 'Low' means it would still not be suitable for high-sided vehicles therefore the prospects and realisation of redirecting all high-sided vehicles from the town centre could not be achieved.

The proposal to redirect the very largest of vehicles would simply not be permissible in accordance with national standards and a scheme to alter the bridge would not be value for money as it would not achieve its desired benefits.

	'U' Deck Option*	'E' Deck Option*	Double 'U' Deck Option
Rockingham Road (current)	4.89m	4.44m	5.03m

4m)**			
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*Deck alteration options in isolation (without carriageway lowering)

**Minimum mandatory 5.03m in accordance with TD27/05.

The road lowering option would require around 1.4m of reduction to the vertical alignment of Rockingham Road to achieve the minimum 5.03m headroom over a carriageway width of 7.3m.

This would be very difficult to achieve given the quantity of services buried in the road and footways and the close proximity of a T-junction. It is likely that significant strengthening or underpinning of the existing abutments would be required due to the change in road level.

Such a major intervention would likely require central government funding which requires an evidence led case, based upon a stringent appraisal criterion set by the relevant Body/ Organisation. The analysis to date has shown very little prospect for national funding opportunities which such a major intervention would require.

It is important to stress that the findings of the structural analysis for the bridge does not hinder the progression of the wide array of measures as set out in category 2 to redirect HGV movements to more suitable routes assisting to alleviate congestion and reduce the volume of traffic through the town centre. These are detailed below: -

- Upgrade Welland Park Road between Lubenham Hill and Northampton Road to the A4303;
- Downgrade the existing A4303 along Coventry Road to the junction of St Mary's Road/ Kettering Road to help redistribute unnecessary traffic away from the town centre;
- Reverse the existing one way on Abbey Street to further deter use of Coventry Road; and
- Potential Signal control enhancement of Church Square/ High Street junction and network synchronisation
- Intervention on St Marys Road and direction of flow to ease congestion at The Square.

Of all procedures, an operation to increase the rail bridge headroom is perhaps the most outstandingly risk prone, particularly in relation to what may appear to be relatively modest scale works. Throughout the country there are a very considerable number of bridges with substandard headroom and it is by no means through a lack of diligence that, by and large, such a deficiency in most cases remains unaddressed.

Having identified the problem of congestion within the town centre, reiterated by the consultation comments, the County Council will continue to explore a number of potential solutions to this pertinent issue. Moreover, this is not to entirely preclude the option of bridge alteration in the future in line with planning development which could influence such a change.

Furthermore, should there be an opportunity to engage once again during a local Network Rail led programme of works in Harborough, the objective to alter the clearance could be considered.

Further analysis to the proposal of an engineering solution to facilitate the passage of high-sided vehicles under the low bridge on Rockingham Road has demonstrated a number of challenges. As a consequence, this concept will not be pursued in this Strategy. This effects the previously advised proposal to designate routes for the EDR which would use this route, should it have been viable to alter the clearance of the bridge. The County Council has considered alternative EDR routes. This is detailed in recommendation R15.

SRR

The concept of a relief road from the A6 to the south-east of the town is the costliest and complex measure, and could not be delivered in the short term. The realisation of benefits has to then be considered over a longer period of time.

The County Council commissioned a broad-brush economic appraisal to estimate the Benefit-Cost Ratio (BCR) of the Market Harborough SRR to give an early indication of its viability. The appraisal report also provides further detail of the potential SRR traffic, and in particular, the proportion of through traffic forecast to use it. The results of which are detailed below.

In the 2031 forecast there will be a general decrease in the traffic on the town centre roads. This is likely to be due to the traffic reassignment and rerouting as a result of the new link road. Traffic is diverting onto alternative routes in order to use the SRR, rather than using town centre roads.

The tables below detailed the volume of traffic anticipated to use the SRR and the associated traffic distribution.

Scenario	EB Total Flow	EB Through Traffic Flow	EB Through Traffic %	WB Total Flow	WB Through Traffic Flow	WB Through Traffic %	Bi - directional Total Flow	Bi-Directional Through Traffic Flow	Bi-Directional Through
2026 AM	331	99	30%	253	87	34%	585	186	32%
2026 PM	309	101	33%	304	103	34%	614	204	33%
2031 AM	345	94	27%	245	84	34%	590	178	30%
2031 PM	357	133	37%	311	94	30%	668	227	34%

'Through Traffic' using the Southern Relief Road

	2026 AM		2026 PM		2031 AM		2031 PM	
	External	Internal	External	Internal	External	Internal	External	Internal
External	32%	28%	33%	24%	30%	32%	34%	25%

Internal	36%	3%	39%	3%	35%	3%	38%	3%
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SRR Traffic Distribution

Demand for the SRR is forecast to be modest, below the available capacity, with a predicted total of 668 two-way movements anticipated in the 2031 forecast peak period. Having undertaken a TUBA assessment of the Market Harborough SRR, the scenario produces a BCR of 0.28. This provides a poor value for money as defined within WebTAG, the economic appraisal guidelines as set by Central Government.

Analysis of Monetised Costs and Benefits	
Greenhouse Gases	89
Economic Efficiency: Consumer Users (Commuting)	1,353
Economic Efficiency: Consumer Users (Other)	3,028
Economic Efficiency: Business Users and Providers	2,950
Wider Public Finances (Indirect Taxation Revenues)	-218
Present Value of Benefits (PVB)	7,202
Broad Transport Budget	25,736
Present Value of Costs (PVC)	25,736
Overall Impacts	
Net Present Value (NPV)	-18,534
Benefit to Cost Ratio (BCR)	0.280

The indication of low value for money, offers a broad health warning with regards to such a major infrastructure project. Although the broad-brush BCR is not a definitive answer and is based on the current known working assumption such as the scheme being fully funded by public resources, it is still evident that the predicted demand associated the relief road does not align with the monetised costs and benefits of the scheme at this time. These are not limited to construction costs but also the long term impact of greenhouses gases, commuter *time saving* benefits and indirect taxation revenues.

The forecast assumptions and predicted demand tested as part of the planned period up to 2031 does not currently align with the relief road providing good value for money and would therefore be considered a longer term aspiration.

Sustainable transport infrastructure / behaviour change initiatives;

This section should be read in conjunction with Section 4.9 of the Study document.

Following the analysis of the consultation submissions, two additional recommendations have been put forward, forming part of the wide array of measures that seek to promote use of sustainable travel modes and initiate key behaviour changes further promoting a shift away from single occupancy car use.

Market Harborough already enjoys an extensive cycle and walking network due to investment in infrastructure made possible over the past 25 years. However, in places the infrastructure has not kept pace with the growth of

local amenities and development. As a consequence, the existing network has, in places, become disjointed and would benefit from some degree of upgrading.

The propensity to engage in sustainable travel modes, such as walking and cycling, is linked to the attractiveness, quality and availability of the supporting infrastructure. Reducing the barrier to such activities which will assist in maintaining Market Harborough as an attractive place to live, support sustainable development and provide a high quality environment that people feel safe to walk and cycle in, and link to public transport services.

Suitability of segregated walk/cycle link between Lubenham and Market Harborough

The tragic circumstances which surrounded the fatal collision involving Adam Mugridge is a catastrophic example of the inherent risk associated with travel. The Adam Mugridge Memorial Fund charity was formed following Adam's loss of life whilst he was cycling to Welland Park Academy from Lubenham in 2006. The charity pursues its purpose to create a walking/ cycle route between Lubenham and Market Harborough. The focus has been on the route which abuts the old rail line, which would create a route away from the carriageway.

The Charity and its trustees have been continually proactive in their thoughtful campaign since its inception, maintaining regular contact with landowners, Northamptonshire and Leicestershire County Councils and are continuing to progress the proposal.

The Adam Mugridge Memorial Fund trustees have offered their support for the Market Harborough Transport proposals which aims to enhance and extend the existing walking/cycling network. Leicestershire County Council recognises the trustees' continual efforts of the Charity.

The Strategy will investigate walk/ cycle routes connecting Market Harborough and Lubenham, in combination with measures to improve the existing walking and cycling infrastructure.

Analysis to determine the suitability of additional pedestrian crossings within the town centre

It is well understood that a pedestrian/ cycle infrastructure is most effective when connected and coherent, and that severance caused by the road network can deter people from safe and sustainable trip making on foot or by cycle.

A significant proportion of trips occurring over the Study area have both an origin and a destination in a relatively short geographical distance of one another. These types of journeys lend themselves to being undertaken by 'active' or 'sustainable' modes of transport; typically walking, cycling or by

public transport. Journeys undertaken by alternative modes of transport to the car are likely to improve the function and resilience of the network through reduced demand, whilst bringing about incidental social improvements such as reduced instances of obesity.

The analysis to date has identified gaps in the existing infrastructure. In total, 20 routes comprising of a mixture of existing and new infrastructure have been identified for upgrade or construction to assist in delivery of the studies strategic outcomes. In addition to analysis and recommendations put forward to date, further analysis to determine the suitability of additional pedestrian crossings within the town centre will be included within the Strategy.

Traffic Management Improvements;

This section should be read in conjunction with Section 4.12 of the Study document.

Maintaining and analysing levels of off-street parking is essential to ensure there is a sufficient availability of spaces within the town centre for residents, shoppers, visitors and workers. Analysis within the Study has currently identified the total parking allocation, the demand and frequency of use at each parking location.

Both on-street and off-street parking is in general well catered for within the Study area. It remains prudent that a single holistic parking Strategy is developed for the town, which incorporates a range of parking controls, and associated measures, incorporates a range of measures/ controls which satisfactorily accounts for local residents, shoppers, visitors, motorists with mobility issues and employees.

Parking at Logan Street /Gardiner St/Knoll Street, East St, Nelson Street, Connaught Road, Kettering Road, Walcot Road

The Study details the longer term ambitions of the County Council to explore the potential for short stay on-street parking on the highway within the town. It is anticipated that the implementation of such a scheme could assist with the management of parking demand.

The locations above were put forward by local residents during the consultation feedback period and their inclusion does not necessarily mean other areas, which require intervention, will be overlooked. We appreciate that there are a number of issues at each of the locations detailed above and where possible, the Strategy will assist in managing parking demand.

The County Council will continue to explore a holistic parking Strategy which accounts for the demand, quality and use of car parking. Delivering this will depend of the engineering feasibility, delivery and viability of parking, but

nonetheless this does not detract from the vision of a coherent parking Strategy.

The provision and management of off-street car parking is the responsibility of Harborough District Council within the framework of their Parking Strategy, 2016. This is a comprehensive and detailed analysis of current and future demand, and offers a number of key recommendations and areas of additional analysis to ensure that future demand is satisfactorily met.

Updated Strategy Summary

The recommendations shown below have been identified and refined to address the issues identified in the Study work and validated during the consultation.

Each recommendation has been evaluated on the basis of key desire transport outcomes. Taken together the recommendations provide the foundation for an outline Transport Strategy.

Capacity / Congestion Improvements	
R1	With the assistance of microsimulation traffic modelling undertake option appraisals for capacity improvements at the following key junctions: <ul style="list-style-type: none"> (i) A6 / B6047 (aka McDonalds Roundabout) (ii) The Square / St Mary's Road / Coventry Road (iii) Northampton Road / Springfield Street / Welland Park Road (iv) A4304 St Mary's Road / Kettering Road / Clarence Street (v) A4304 Rockingham Road / Gores Lane (vi) A6 / Harborough Road / Dingley Road / A4304 (vii) Sainsbury's store entrance / Springfield Street
R2	As part of the refinement of the analysis so far undertaken, the Authority will analyse the extent of the problem of blocking at local junctions which could be mitigated by the provision of yellow box markings.
Recommendations that result in changes to the network and traffic routing	
R3	With the assistance of microsimulation traffic modelling consider the upgrade of Welland Park Road to become the A4304, with a respective downgrading of Coventry Road. Determine the associated engineering, accommodation and complementary works to facilitate this work.
R4	Consider the principle of providing a relief road between the A508 and A6 to the south-east of the town as a long term aspiration.
Sustainable transport infrastructure / behaviour change initiatives	
R5	Extend and enhance the walking and cycling network
R6	Make localised public transport infrastructure improvements

R7	Identify a suite of tailored behaviour change initiatives to encourage modal shift in travel choice towards active and sustainable travel.
R8	The Strategy will investigate walk/ cycle routes connecting Market Harborough and Lubenham, in combination with measures to improve the existing walking and cycling infrastructure.
R9	Analysis to determine the suitability of additional pedestrian crossings within the town centre
R10	Enhancement of the supporting infrastructure to encompass the nearby rail and bus terminals thereby increasing the attractiveness of such assets for those on foot or cycle.
Safety Improvements	
R11	Continue to monitor Road Traffic Collisions (RTC) within the Study area. If an RTC occurs within, or adjacent to, a proposed improvement scheme proportionate efforts should be made where appropriate to include complementary measures that could reduce further RTCs.
Traffic Management Improvements and Emergency Diversion Routes	
R12	Devise and implement a new Strategy for traffic signing across the Study area
R13	Review parking controls in the vicinity of the town centre and train station, with particular regard to the need/benefit of further permit parking zones.
R14	Sites with recorded speeds in excess of the Association of Chief Police Officers enforcement threshold should be reviewed with a view that, where viable and cost effective, measures will be developed to improve compliance with the stipulated speed limit.
R15	Identify opportunities to divert Highways England emergency diversion routes away from the town centre
HGV controls	
R16	Identify undesirable routes for HGVs and impose suitable prohibitions. Whilst the promotion of a town wide environmental weight restriction would be preferable, two key routes are particularly vulnerable to exploitation by inappropriate HGV traffic and should be adopted as a minimum: (i) Ashley Road /Kettering Road between the A4304 and the A6 (ii) Bath Street/Western Avenue between the A508 and Farndon Road
R17	Send updated map to 'sat-nav' contacts, advising of HGV controls following on from recommendation R16
Highway Maintenance	
R18	In light of the size and scope of the Study, incorporate / consider maintenance activities in relation to improvement proposals

A two additional consultation points will be included within future analysis, however rather than recommendations in their own right these can be taken forward as inclusions to existing recommendations. These are detailed below:-

- Where possible specific consideration Analysis of Logan street /Gardiner St/Knoll Street, East St, Nelson Street, Connaught Road, Kettering Road, Walcot Road car parking will be included as part of the Traffic Management Improvements; and
- The micro-simulation analysis will model/test the impact of removing traffic signals or turning off certain sets of signals during off peak periods.

Recommendation R1

Undertake option appraisals for key junctions and make capacity improvements

Overview

The recommendation is to assess options for increasing the capability and resilience of key strategic junctions around the town to cope with peak hour demand.

Rationale

It is evident from transport modelling that the performance of the network is in places already poor, and forecast to deteriorate further in the future. Without appropriate intervention those poorly performing junctions will impede the economic growth of the area and generally be to the detriment of those who live, work and visit the town.

Findings

To date, 9 junctions have been identified for consideration. Of those; 7 were identified via the LLITM modelling;

- The Square / St Mary's Road / Coventry Road
- Northampton Road / Springfield Street
- Northampton Road / Welland Park Road
- St Mary's Road / Kettering Road / Clarence Street
- Rockingham Road / Gores Lane
- A6 / Harborough Road / Dingley Road / A4304
- Sainsbury's store entrance / Springfield Street;

and a further 2 junctions were selected for inclusion by LCC officers with local knowledge of where issues either exist now, or may be likely to arise in the future as a consequence of traffic growth/re-distribution;

- A6 / B6047 (aka McDonalds roundabout)
- *Springfield Street / Kettering Road*.

Sainsbury's car park / Springfield Street, is yet to be considered for potential improvements. With that being the only exception, all of the junctions identified have had a detailed analysis of their capacity and performance undertaken using specialist software (LinSig / Arcady etc) that is more detailed than that of LLITM. *That detailed modelling has confirmed that mitigation is required at all of the junctions tested except for the roundabout junction of Springfield Street and Kettering Road; which is shown to have sufficient reserve capacity. On site observations suggest that the site is susceptible to problems caused by queuing originating from St Mary's Road / Kettering Road / Clarence Street and the Sainsbury's store entrance / Springfield Street junctions

To date, and subsequent to an exercise of solution optioneering, a preferred mitigation scheme has been selected for junctions 1, 2, 3, 4, 5 and 8. Those schemes are summarised the Table below.

Scheme drawings of the proposed mitigation schemes, along with more detailed summaries of the option appraisal process and model outputs are available in **Appendix F**.

The next stage of the Study will be to test/model the impact of the individual junction proposals across the network to see if collectively they work together.

Jn. No.	Location	Existing Reserve Capacity (2015 Flows)	Existing Reserve Capacity (2015 Flows)	Forecast Reserve Capacity (2031 Flows)	Forecast Reserve Capacity (2031 Flows)	Preferred Mitigation Option	Mitigation Capacity (2031 Flows)		Mitigation Scheme Cost
		AM	PM	AM	PM		AM	PM	
1	The Square / St Mary's Rd / Coventry Rd	-31%	-33%	-28%	-58%	No suitable mitigation identified at this time. Further analysis required. Consideration of one way system: Two potential one way systems have been proposed for consideration. <ul style="list-style-type: none"> The first option makes St Mary's Road one way from The Square towards the Kettering Road / Clarence Street junction. Whilst this has highlighted that The Square / St Mary's Road junction would significantly benefit from the scheme, other junctions along Springfield Street may not cope with the additional traffic. Another option proposes a partial one way on St Mary's from the main junction at the Square towards Adam & Eve Street (which is currently already one way). Traffic would eventually exit on the main street near the junction adjacent to the church at Church Square. The junction of A4304 Main St and Church Square could be signalised with pedestrian facilities. The existing zebra crossing would be removed which could help co-ordinate this junction with the Square. 	N/A	N/A	N/A
2&3	Northampton Rd / Springfield St / Welland Park Rd	-4%	-9%	-15%	-17%	Option no.2 Additional lanes on both Northampton Road approaches. Additional islands on both Northampton Rd approaches to allow pedestrians to cross both side road whilst running Northampton Road ahead. Signal timings adjusted to link Welland Park Road & Springfield Road better and reduce blocking of internal stop lines	+11%	-5%	£310,000 to £550,000 (excluding Stats & Fees & Land costs)
4	St Mary's Road / Kettering Road / Clarence Street	-6%	-16%	-7%	-18%	Option no. 2 Validate MOVA to ensure optimum junction performance. Make Clarence Street One Way (Away from junction) and remove stage 3 from the sequence.	+14%	-3%	Approx £40-60k (Excluding any necessary alterations to Great Bowden Road/Rockingham Road)
5	Gores Lane / Rockingham Rd	-1%	-4%	-1%	-6%	Option no.1 Installation of on crossing pedestrian/cyclist detectors that will extend the intergreen period if required. This will allow the intergreen period to be reduced and only extended if necessary.	+7%	+2%	£3k-£5k (£30k-£40k) (If the signals are required to be renewed and converted to LED)
8	A6 / B6047 (Roundabout)	26%	24%	-4%	-3%	Option no.1 Provide widening on the B6047 Nth approach. Part of mitigation measure for a development. 0.85 RFC normally the threshold for capacity. With the mitigation measure RFC is only just tipped over 0.85.	0.82	0.89	Approx. £225k (excluding utility diversions)

Summary table of preferred junction enhancement schemes

Recommendation R2*Appraisal of yellow box markings**Overview*

This recommendation will assess the suitability of such markings is measured against a number of criteria and factors which may influence their installation such as the type of junction (whether signal controlled for example), blocking back from a junction ahead and traffic flows.

Rationale

Betterment to traffic flow and optimal use of the highway network.

Recommendation R3

Consider upgrade of Welland Park Road to A4304 & a respective downgrading of Coventry Road. Determine associated engineering, accommodation & complimentary works to facilitate the same.

Overview

The recommendation is to designate that section of Welland Park Road between Lubenham Hill and Northampton Road as the A4304 and consequently to downgrade the existing A4304 route along Coventry Road between Lubenham Hill to the junction of St Marys with Kettering Road; the point at which the 2 potential routes converge.

Rationale

Welland Park Road serves as the only alternative route to Coventry Road/St Marys for east/west movements across the town.

Whilst Coventry Road is promoted as the 'A' classified route, analysis points towards Welland Park Road as being the more strategically favourable of the two.

As per the table below (Change in flow, Coventry Road vs Welland Park Road, 2011-2031), it is evident that whilst the two routes currently carry a similar amount of traffic, that which is carried by Welland Park Road in the future is forecast to exceed Coventry Road by some 30%. Coventry Road is actually predicted to experience a decrease in the absolute number of vehicles of around 300 per day over the combined peak periods; comparable to the increase predicted for Welland Park Road. This suggests that Coventry Road traffic is naturally opting to re-distribute onto Welland Park Road.

Further analysis of the 2 routes between the points at which they diverge at Lubenham Hill, and then meet at Rockingham Road demonstrates that the Welland Park Road route is not only the shortest of the 2, but also has fewer likely conflict points between highway users. More importantly still is that Welland Park Road avoids the pedestrian dense town centre. These attributes have been tabulated in the table (Route attributes comparison, Welland Park Road vs. Coventry Road).

Location	Flow (2011)	Flow (2031)	Diff	Diff (%)
Welland Park	1,699	1,994	+295	+17%
Coventry Road	1,756	1,528	-288	-12%

Change in flow, Coventry Road vs Welland Park Road, 2011-2031

Attribute	Coventry Road	Welland Park Road
Route distance	1,850 metres	1,770 metres
Bus stops	12	1
Junctions with public highway	22	11
Minor private access onto highway(e.g driveways)	105	140
Major private access onto highway(e.g. Supermarket)	5	5
Formal pedestrian crossing points	17	13
Proximity of residential properties to centre of carriageway	14 metres	20 metres

Route attributes comparison, Welland Park Road vs. Coventry Road

Rather than simply re-designate the status of a route, there would likely be a number of complimentary changes required to both facilitate the intended re-designation, and to deter the use of other, less desirable routes.

In view of the above, and in order to facilitate the designation of Welland Park Road as the A4304, it would be necessary to sufficiently upgrade those junctions to satisfactorily accommodate the increased demand.

Welland Park Road currently features extensive traffic calming by the way of priority chicanes and vertical speed reducing ramps. These features would need to be assessed with a view to reducing the impedence they impose upon the free flow of traffic, whilst continuing to suitably well restrain vehicles speeds to a safe and appropriate level.

Consideration would need to be afforded to the imposition of traffic regulation orders along Welland Park Road to prohibit the parking of vehicles.

The junction of Welland Park Road and Farndon Road is known to be a site with a history of RTCs. Whilst an accident remedial scheme was implemented in 2015, there may, as a result of the proposed re-classification, be benefit in

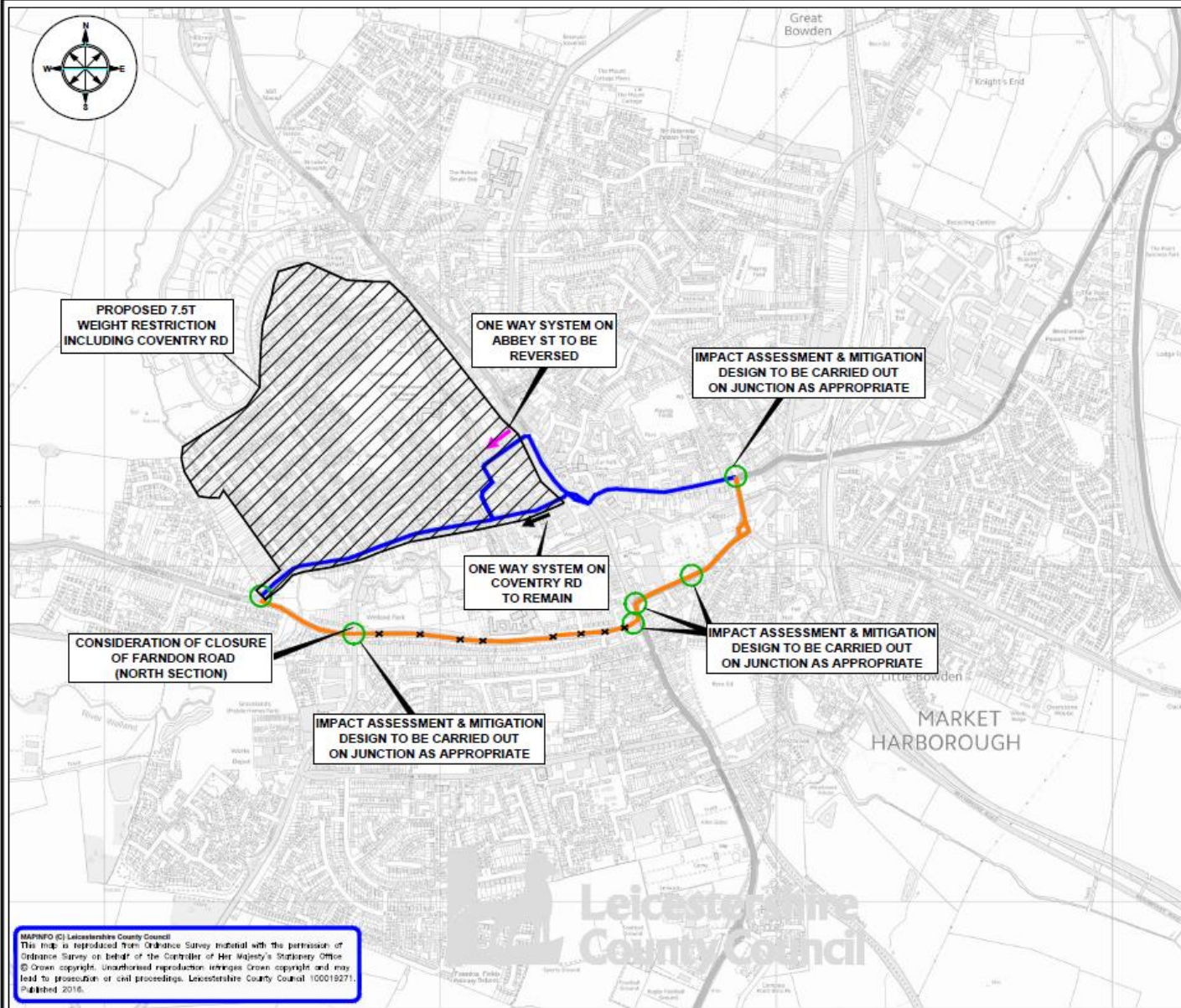
again reviewing the road layout at that location, with particular consideration being afforded to the potential of closing Farndon Road (north). In doing so, the number of movements at the junction would be simplified, and traffic would be discouraged from using Farndon Road to reach Coventry Road; opting instead to use Welland Park Road.

In addition to the potential closure of Farndon Road, further efforts should be made to deter the use of Coventry Road, and ultimately the town centre.

Suggested options for further investigation would be reversing the one-way traffic order on Abbey Street to require vehicles to travel west on Abbey Street rather than east towards the town centre, and the imposition of an environmental 7.5 tonne weight restriction on that section of the Coventry Road route between Lubenham Hill and High Street.

In order to determine whether formally re-designating the A4304 would be viable and of benefit, it will be necessary to undertake a further phase of testing using traffic modelling software and a more detailed impact assessment of the complimentary works outlined above.

The Figure illustrates the different components concerned with the re-designation of Welland Park Road.



- EXISTING 'A4304' TO BE DOWNGRADED —
- NEW ROUTE TO BE DESIGNATED AS 'A4304' —
- TRAFFIC CALMING FEATURE TO BE REVIEWED X



ENVIRONMENT AND TRANSPORT DEPARTMENT

**PHIL CROSSLAND
DIRECTOR**

DESIGN & DELIVERY GROUP

MARKET HARBOROUGH

**TITLE:
RECLASSIFICATION OF A4304
PROPOSAL**

DRAWING NUMBER	SCALE
N/A	NTS
PREPARED BY: R DAVIES	DATE: MAY 2016
CHECKED BY: M ARCHER	SIZE: A3
APPROVED BY: M ARCHER	CORR. FILE:

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 Published 2016.

Recommendation R4

Consider the principle of providing a relief road between the A508 & A6 to the south east of the town as a long term aspiration.

Overview

The recommendation is to determine whether it would be beneficial for the town to provide a south eastern relief road linking the A508 and the A6; diverting the primary route away from the town centre.

Rationale

This report has identified a general trend of decline in the performance/capacity of the network and its ability to accommodate forecast growth without engineering interventions.

A number of those issues identified; congestion, access for high-sided vehicles, presence of EDR route etc. could each likely be alleviated by the reduction in demand afforded by a suitable alternative route being provided to orbit the town; reducing through traffic and connecting the main arterial routes into/out of the town.

The town will already be bypassed to the north, east and west by the A6 and, albeit to a lesser extent, the SDA link road. As such, an additional relief road to the south of the town; linking the A508 and the A6, would be the most strategic location, and provide the opportunity to divert the primary route (A508 and A4304) from passing through the Study area.

Findings

A high level appreciation of the introduction of a southern relief road (SRR) has been undertaken using the LLITM software. For the purposes of that appraisal an assumed speed limit of 60mph, and a peak in demand between 08:00-09:00hrs and 17:00-18:00hrs for the morning and evening peak respectively has been used.

Having undertaken a TUBA assessment of the Market Harborough SRR, the scenario produces a BCR of 0.28. This provides a poor value for money as defined within WebTAG, the economic appraisal guidelines as set by Central Government.

The indication of low value for money, offers a broad health warning with regards to such a major infrastructure project. Although the broad-brush BCR is not a definitive answer, it is evident that the predicted demand associated the relief road does not align with the monetised costs and benefits of the scheme at this time. These are not limited to construction

costs, but also the long term impact of greenhouses gases, commuter *time saving* benefits and indirect taxation revenues.

The forecast assumptions and predicted demand tested as part of the planed period up to 2031 does not currently align with the relief road providing good value for money. This demonstrates the scheme therefore should become a long term aspiration.

Initial high level estimates suggest that the cost to deliver the SRR is likely tobe in the region of £35,000,000 - £45,000,000. It is with good cause thereforethat the benefit of such a scheme should be sufficient to warrant the cost.

Recommendation 5

Extend and enhance the walking and cycling network

Overview

The recommendation is to undertake a thorough audit of the walking and cycling network with a view to identifying opportunities to upgrade and extend the network.

Rationale

A significant proportion of trips occurring over the Study area have both an origin and a destination in a relatively short geographical distance of one another. These types of journeys lend themselves to being undertaken by 'active' or 'sustainable' modes of transport; typically walking, cycling, or by public transport. Journeys undertaken by alternative modes of transport to the car are likely to improve the function and resilience of the network through reduced demand, whilst bringing about incidental social improvements such as reduced instances of obesity.

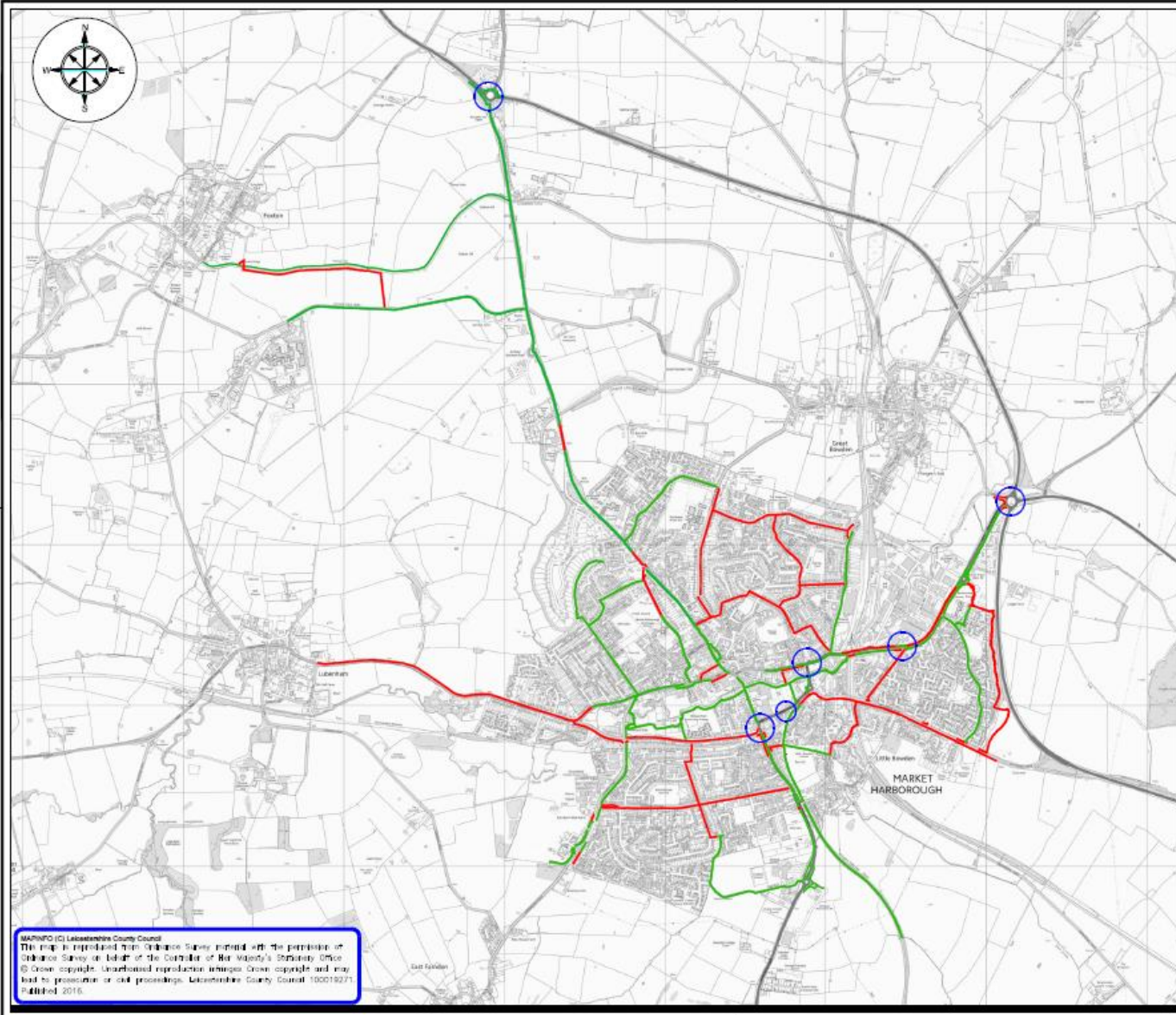
Findings

As previously stated, Market Harborough is not without purpose built facilities for walking and cycling. However, there are missing links and existing infrastructure that would benefit from being enhanced/upgraded.

Analysis of the existing walking and cycling network contrasted with the town's known key amenities, places of work and residence soon demonstrates the scale and potential for further development of the network.

In total, 20 routes comprising of a mixture of existing and new infrastructure have been identified for upgrade or construction to assist in delivery of the studies strategic outcomes.

The proposed resultant walking/cycling network is shown in the Figure. A detailed explanation of each route is available in Appendix D. It is important to note that these are the promoted routes only. Other infrastructure for walking and cycling will exist elsewhere beyond those routes.



LEGEND:

- Proposed cycle route - on / off carriageway
- Existing cycle route - on & off carriageway
- Identified 'Key Junction'



ENVIRONMENT AND
TRANSPORT DEPARTMENT

PHIL CROSSLAND
DIRECTOR

DESIGN & DELIVERY
GROUP

MARKET HARBOROUGH

TITLE:
OVERVIEW PLAN - DETAILING EXISTING
AND PROPOSED CYCLE NETWORK
WITH IDENTIFIED KEY JUNCTIONS

DRAWING NUMBER	SCALE
N / A	NTS

PREPARED BY: R DAVIES	DATE: MAY 2016
CHECKED BY: M ARCHER	SIZE: A3
APPROVED BY: M ARCHER	CORR. FILE: 1

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Recommendation R6

Make localised public transport infrastructure improvements

Overview

The recommendation is to deliver a package of public transport (bus) infrastructure improvements throughout the Study area.

Rationale

As per Recommendation R5, a good proportion of travel in the town is local; and on that basis would lend itself more readily to modal conversion, away from the car to other modes, such as public transportation; reducing the number of vehicles on the network.

Public transport in the UK was deregulated by the 1985 transport act and as such the majority of services are run on a commercial basis by private companies and as such the County Council does not have any control over these services and the decision on bus service frequency and hours of operation is a commercial one, made by the bus operators themselves. The County Council does subsidise a number of services which may not otherwise be commercially attractive, but are considered to be socially necessary. In Market Harborough the no.33, no.44, and no. 58 services are all subsidised to some extent. However, the effect of public sector austerity and reductions in revenue funding mean that local government's ability to continue to fund such services is being severely curtailed.

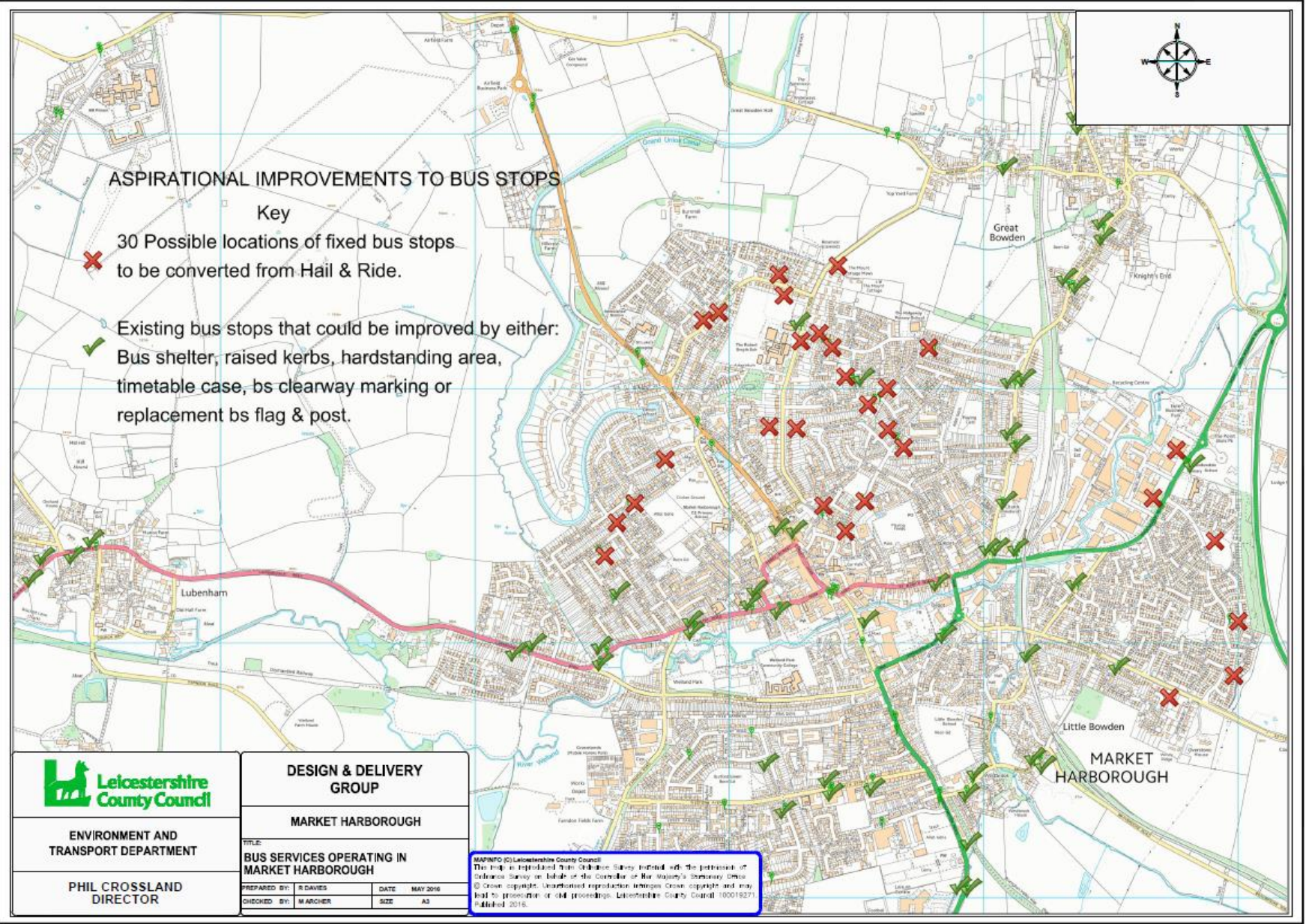
An investment through the introduction of new bus stops, new and improved bus shelters and real time timetable displays is to encourage bus patronage which in turn would strengthen the commercial viability of services allowing operators to look at increasing frequency or extending the hours of the service; which can in turn negate the need for continued financial support from the Council.

Findings

With regard to route locations, frequency and duplication of services, buses in Market Harborough are run by commercial operators and they are responsible for managing their routes and timetables within a commercial market.

A suite of potential bus infrastructure improvements have been identified for the Study area including raised bus stop kerbs to improve accessibility when boarding/alighting; new/upgraded shelters to encourage patronage; and conversion of hail and ride services to fixed service points to improve safety, reliability and punctuality.

The Figure shows the location of possible bus infrastructure improvements and sites of hail & ride conversions. A more detailed summary of the findings is available in Appendix D and E



ASPIRATIONAL IMPROVEMENTS TO BUS STOPS

Key

- ✕ 30 Possible locations of fixed bus stops to be converted from Hail & Ride.
- ✓ Existing bus stops that could be improved by either: Bus shelter, raised kerbs, hardstanding area, timetable case, bus clearway marking or replacement bus flag & post.

Leicestershire County Council

ENVIRONMENT AND TRANSPORT DEPARTMENT

PHIL CROSSLAND DIRECTOR

DESIGN & DELIVERY GROUP	
MARKET HARBOROUGH	
TITLE: BUS SERVICES OPERATING IN MARKET HARBOROUGH	
PREPARED BY: R DAVIES	DATE: MAY 2016
CHECKED BY: M ARCHER	SIZE: A3

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Recommendation R7

Identify a suite of tailored behaviour change initiatives to encourage modal shift in travel choice towards active and sustainable options.

Overview

The recommendation is to promote and deliver across the Study area a tailored package of initiatives that work towards encouraging and facilitating a modal shift in behaviour towards non-car dependent modes of transport such as walking, cycling and public transport (supporting Recommendations 5, 6, 7 and 8).

Rationale

As per recommendation R6, a significant number of trips undertaken on the network have both an origin and destination within the Study area. These local trips are the most easily influenced towards alternative modes of transport. Experience demonstrates that the most effective method of driving that modal shift is through a coordinated package of infrastructure improvements and a complimentary series of softer measures such as training, journey planning, and education and information provision.

Findings

A tailored package of behaviour change initiatives has been provided in Appendix H of the Market Harborough Transport Study, 2016.

Recommendation R8

The Strategy will investigate walk/ cycle routes connecting Market Harborough and Lubenham, in combination with measures to improve the existing walking and cycling infrastructure.

Overview

The tragic circumstances which surrounded the fatal collision involving Adam Mugridge is a catastrophic example of the inherent risk associated with travel. The Adam Mugridge Memorial Fund charity was formed following Adam's loss of life whilst he was cycling to Welland Park Academy from Lubenham in 2006. The charity pursues its purpose to create a walking/ cycle route between Lubenham and Market Harborough. The focus has been on the route which abuts the old rail line, which would create a route away from the carriageway.

Rationale

Leicestershire County Council recognises the trustees' continual efforts and the clear synergy between the objectives of the Charity and the Strategy.

The Strategy will investigate walk/ cycle routes connecting Market Harborough and Lubenham, in combination with measures to improve the existing walking and cycling infrastructure.

Recommendation R9

Analysis to determine the suitability of additional pedestrian crossings within the town centre.

Overview

The recommendation is to undertake a thorough audit of the walking and cycling network, in line with recommendation 5, and view to identifying opportunities to upgrade and extend the network.

Rationale

A significant proportion of trips occurring over the Study area have both an origin and a destination in a relatively short geographical distance of one another

It is well understood that a pedestrian/ cycle infrastructure is most effective when connected and coherent, and that severance caused by the road network does not deter people from safe and sustainable trip making.

Recommendation R10

Enhancement of the walking and cycling environment to encompass the nearby rail and bus terminals. Make general aesthetic upgrades to existing materials and arrangement.

Overview

The recommendation is to upgrade/update the walking and cycling environment; creating purpose made market gateways to the town centre, and to extend the reach of the public realm to encompass the rail and bus terminals.

Rationale

Improving the link between the town centre and strategic transport hubs for commuters, residents and visitors would increase the desirability to live, work and visit the town; supporting businesses, tourism, and demand for local housing.

Findings

Initial assessment of the public realm has been undertaken by the County Council's Landscape Architects. A plan showing initial officers comments can be seen in the figure.

The detail of any Public Realm enhancements is likely to be dependent on first having a confirmed Strategy for infrastructure alterations/enhancements as these are likely to have some impact on the opportunities / options that exist for public realm extension.

Recommendation R11

Continue to monitor Road Traffic Collisions (RTC) within the Study area. If an RTC occurs within, or adjacent to, a proposed improvement scheme proportionate efforts should be made where appropriate to include complementary measures that could reduce further RTCs.

Overview

The recommendation is to ensure that wherever an RTC resulting in personal injury has occurred within close proximity to a proposed scheme arising from this Strategy, efforts should be made to extend the scope of that scheme to include for mitigation works to reduce the likelihood of further such incidents of an RTC from occurring.

Rationale

Market Harborough consistently records a comparatively low level of road traffic collisions, compared to other similar areas (towns) in the county. Furthermore, the frequency of accidents on the 4 main routes across the town, the A4304 (west), A4304 (east), A508 and B6047, fall below that which might be expected on similar roads nationally. However, by making minor refinements to other nearby works, it may be possible to deliver minor, albeit unrelated highway safety improvements that otherwise would have been unlikely to have attracted financial investment

Recommendation R12

Devise and implement a new Strategy for traffic signing across the Study area

Overview

The recommendation is to establish and implement a new and comprehensive traffic signing Strategy for the town to replace the current provision.

Rationale

Despite the known benefits of a managed and proactive approach, there is no recorded Strategy for signing; either strategic or local, for traffic in the Study area. In the absence of which, the performance of the network cannot be optimised.

Whilst amendments to the signing can be retrospectively made in a piecemeal fashion; there are likely to be a multitude of changes prompted by the delivery of other recommendations made by this report that afford a unique opportunity to 'start again'; ensuring that the new Strategy is reflective of the modern day expectation and function of traffic signing.

Findings

A proposed Strategy for the signing can be found in Appendix G.

Estimated implementation costs of a previous, similar initiative in Hinckley was around £100,000

Recommendation R13

Review parking controls in the vicinity of the town centre and train station, with particular regard to the need/benefit of further permit parking zones.

Overview

The recommendation is to review all traffic regulation orders pertaining to on-street parking within the Study area with a view to determining the ongoing suitability of existing controls and locations where a need for additional or revised controls may exist now, or is likely to emerge in the future.

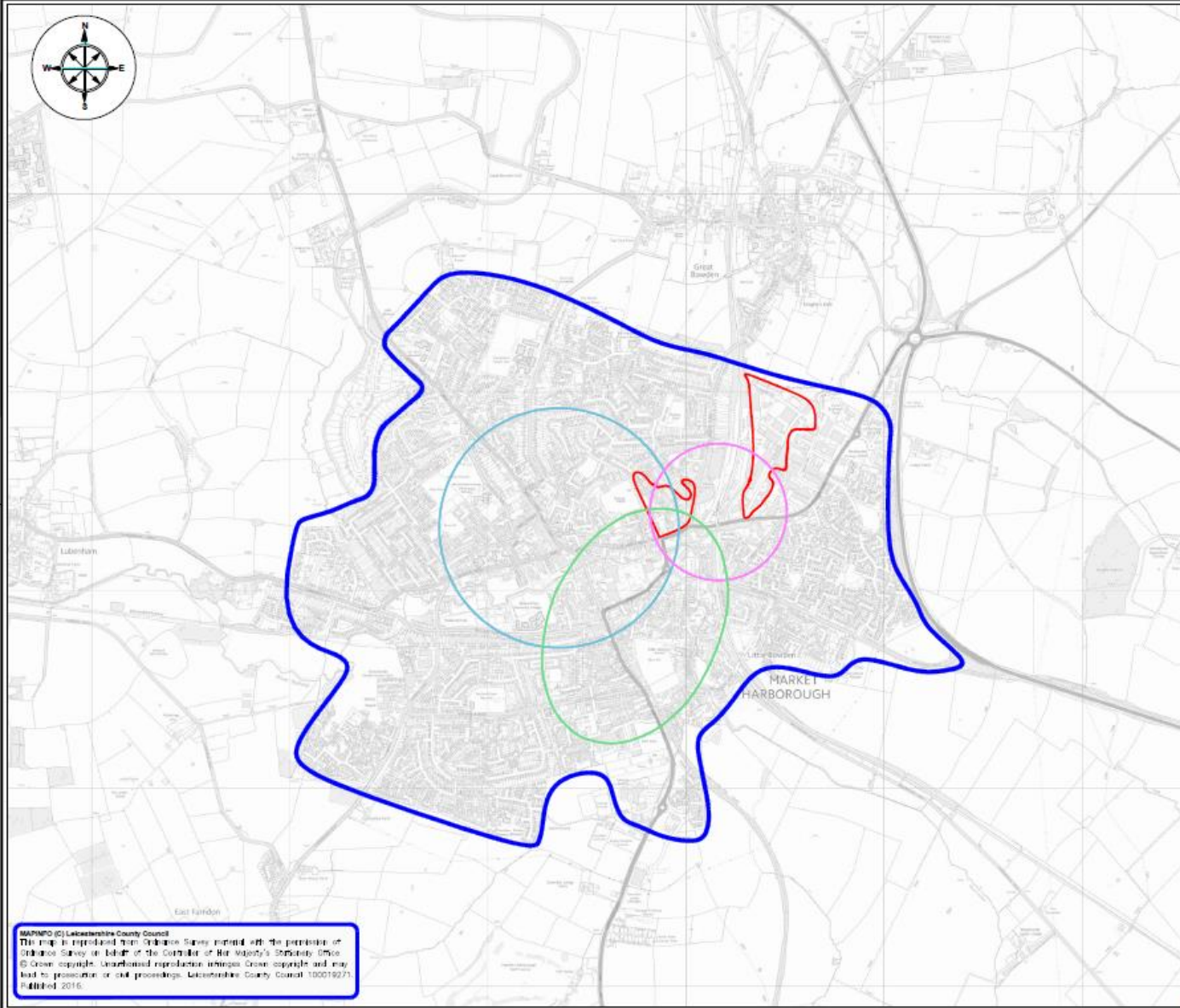
Rationale

As with traffic signing; despite the known benefits of a managed and proactive approach to the effective management of on street parking, there is little in the way of a recorded Strategy in the Study area. In the absence of which, it is not truly possible to know whether the existing provision is fit for purpose.






The forecast trend of an increase in traffic, coupled with an aspiration to improve the town's economic prospects and the quality of life of its residents and visitors requires a strategic approach to parking management that is able to balance the often competing needs of all.

An area based review therefore presents a unique and ideal opportunity to ensure that an appropriate, proportionate and tailored suite of complimentary controls exist; all of which are working towards one common goal.

The Figure shows the extents of where the proposed reviews as well as areas where a permit to park scheme may need to be considered due to their proximity to the town centre, shopping /amenity hubs and/or the local rail station.



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-  REVIEW AREA OF ALL PARKING CONTROLS
-  EXISTING AREA SUBJECT TO PERMIT PARKING SCHEME
-  AREA FOR CONSIDERATION OF PERMIT PARKING SCHEME - DUE TO PROXIMITY OF STATION
-  AREA FOR CONSIDERATION OF PERMIT PARKING SCHEME - DUE TO PROXIMITY TOWN CENTRE
-  AREA FOR CONSIDERATION OF PERMIT PARKING SCHEME - DUE TO SHOPPING AREA



ENVIRONMENT AND TRANSPORT DEPARTMENT 

PHIL CROSSLAND
DIRECTOR

DESIGN & DELIVERY GROUP

MARKET HARBOROUGH

TITLE:
TOWN CENTRE REVIEW OF PARKING CONTROLS - INCLUDING PERMIT SCHEMES

DRAWING NUMBER		SCALE	
		NTS	
PREPARED BY:	R DAVIES	DATE:	MARCH 2016
CHECKED BY:	M ARCHER	SIZE:	A3
APPROVED BY:	M ARCHER	CORR. FILE:	
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Recommendation R 14

Sites with recorded speeds in excess of the ACPO enforcement threshold should be reviewed.

Overview

The recommendation is to take a proactive look at each of the 13 sites where the average speed; whether that be the mean speed or the 85th percentile speed, has been recorded to be in excess of the threshold necessary to prompt enforcement action by the Police.

Should a viable and cost effective engineering measure exist that is likely to restrain speeds below the prescribed threshold these should be considered for delivery to improve compliance, and thus highway safety. It is important to note that the figures cited portray the worst of the readings taken for each site. It may well become evident on closer inspection that the majority of readings taken do not warrant any further action.

No appraisal of possible options has been undertaken to date.

Recommendation R15

Identify opportunities to divert HE EDR routes away from the town centre

Overview

The recommendation is to reduce the burden imposed upon the town owing to the presence of Highways England's off network diversion routes.

Rationale

Concerns over the detrimental impact on the amenity of the town, highway safety and network performance have been raised citing the general amount of traffic using the town centre. This matter is particularly exacerbated during times when the A14 EDR routes are initiated. It is considered to be advantageous to identify opportunities to re-route this traffic away from the town centre.

Findings

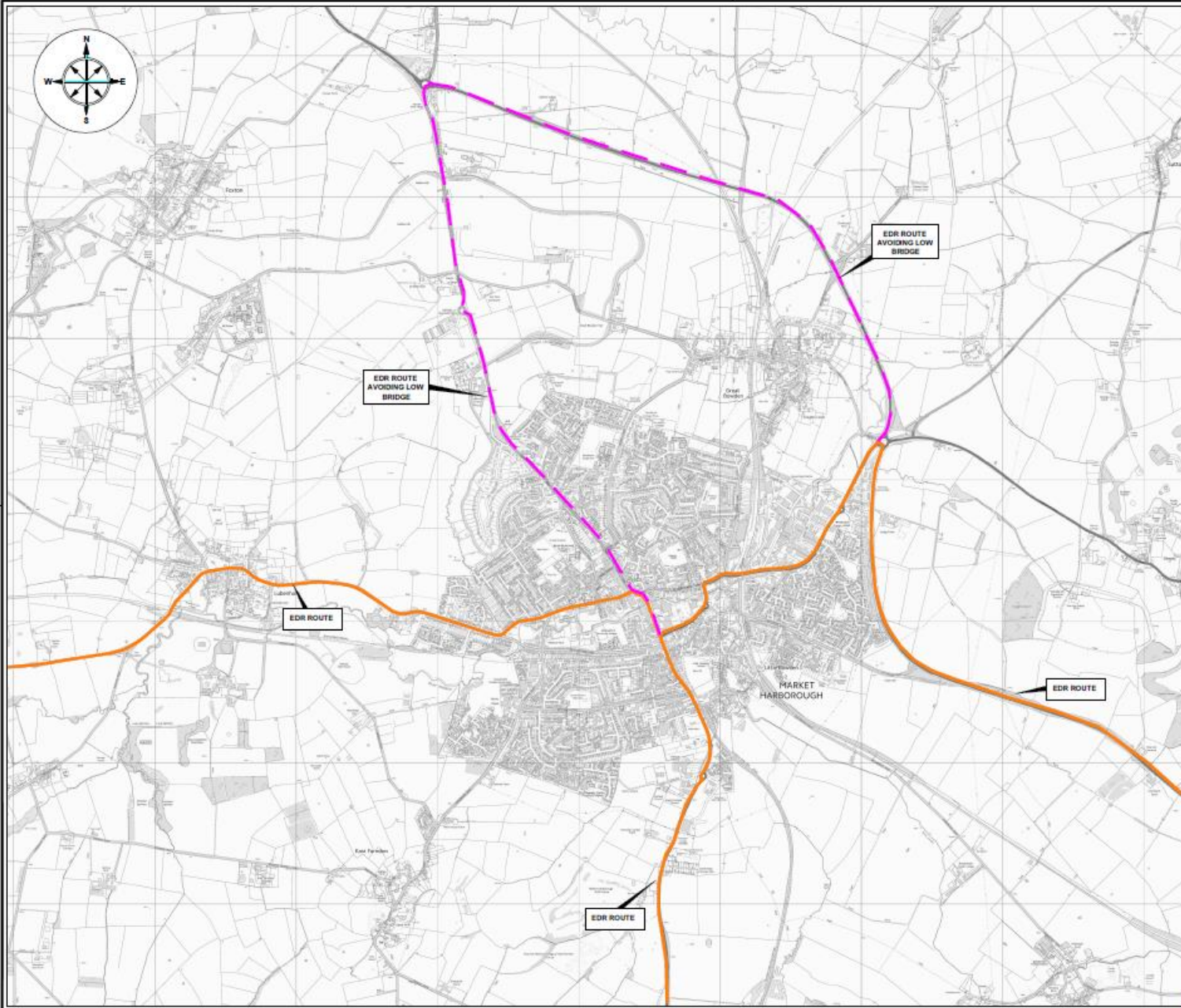
The EDR route currently makes use of Coventry Road via The Square owing to its status as an 'A' classified route. However, as previously identified in the review of classified roads through the Study area (Chapter 4, para 4.2), it is apparent that Welland Park road may well have the potential to be a more suitable alternative to Coventry Road; regardless of its classification.

Re-designation of the EDR on to Welland Park Road would facilitate diverting the EDR away from the town centre. The only remaining signed EDR route through the town centre would be those high-sided vehicles currently unable vehicles to pass under the low bridge on Rockingham Road.

Further analysis to the proposal of an engineering solution to facilitate the passage of high-sided vehicles under the low bridge on Rockingham Road has demonstrates a number of challenges. As a consequence, this concept will not be pursued in this Strategy and is a longer term aspiration. This effects the previously advised proposal to designate routes for the EDR which would use this route, should it have been viable to alter the clearance of the bridge. The County Council has considered alterative EDR routes.

It may be possible to utilise the SRR route which would bypass the town centre in its entirety should there be an unplanned closure on the A14 should the SRR be built.

Figure 32 and 33 illustrate the existing and alternatives for EDR routing should the EDR be moved on to Welland Park Road and using the SRR.



KEY
 EXISTING SIGNED EMERGENCY DIVERSION ROUTE (EDR) USED WHEN A14 IS CLOSED BETWEEN JUNCTIONS 1-3
 EXISTING SIGNED EDR AVOIDING ROCKINGHAM ROAD LOW BRIDGE



ENVIRONMENT AND TRANSPORT DEPARTMENT

ANN CARRUTHERS DIRECTOR

DESIGN & DELIVERY GROUP

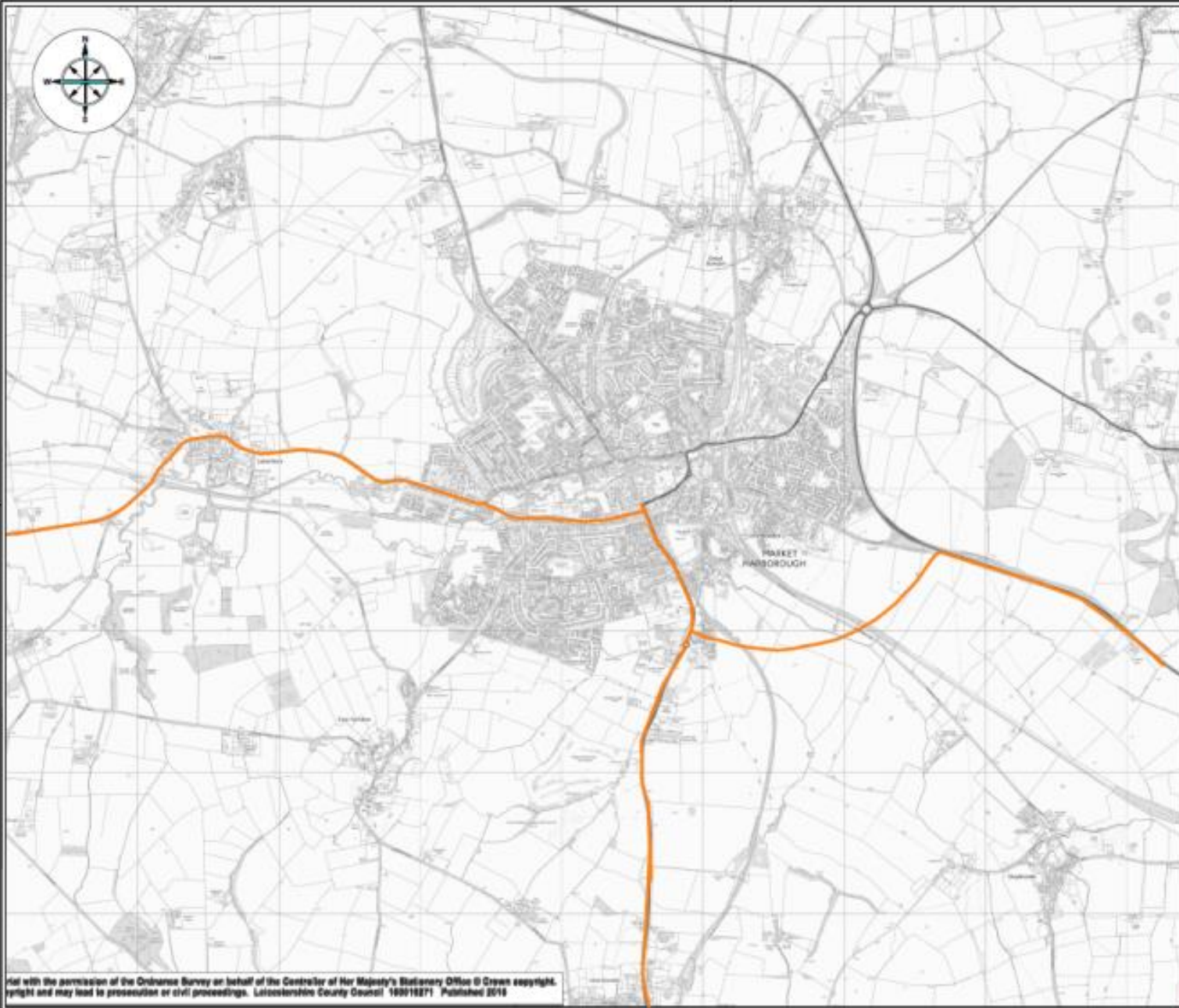
MARKET HARBOROUGH

TITLE: EMERGENCY DIVERSION ROUTING PLAN FOR A14

EXISTING ARRANGEMENTS

DRAWING NUMBER	SCALE
N / A	NTS
PREPARED BY: R DAVIES	DATE: OCT 2017
CHECKED BY: M PALFREYMAN	SIZE: A3
APPROVED BY: M PALFREYMAN	CORR. FILE:

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KEY

POTENTIAL SIGNED EMERGENCY DIVERSION ROUTE (EDR) TO BE USED WHEN A14 IS CLOSED BETWEEN JUNCTIONS 1-3





Leicestershire County Council

ENVIRONMENT AND TRANSPORT DEPARTMENT 

ANN CARRUTHERS
DIRECTOR

DESIGN & DELIVERY GROUP

MARKET HARBOROUGH

TITLE:
EMERGENCY DIVERSION ROUTING (EDR) PLAN FOR A14- POTENTIAL SUBJECT TO RELIEF ROAD AND UPGRADING OF WELLAND PARK ROAD

DRAWING NUMBER	SCALE
N / A	NTS
PREPARED BY: B DAVES	DATE: OCT 2017
CHECKED BY: M FALTRITSIAN	NO: AJ
APPROVED BY: M FALTRITSIAN	CORR. FILE:

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Recommendation R16

Identify undesirable routes for HGVs and impose suitable prohibitions.

Overview

The recommendation is to identify and prohibit the use of undesirable routes that may now, and in the future be vulnerable/attractive to exploitation by HGV drivers seeking an alternative route to the classified road network.

This recommendation should be considered to be a precautionary measure; safeguarding against the potential for inappropriate routing, rather than a reactive response to address a significant current issue

Rationale

Whilst the number of recorded instances/complaints of HGVs using unclassified roads in order to take an alternative route through the Study area is low, there are a number of residential streets that do lend themselves to such exploitation. Existing low underpass heights at bridges on Rockingham Road and Kettering Road restrict the ease of movement. That, combined with a general growth in traffic can each contribute to the use of undesirable routes by HGVs, potentially causing damage to the highway and dissatisfaction amongst local residents.

It is important to note that this recommendation should be read as a standalone initiative; it does not therefore consider the potential for incidental HGV controls arising as a direct result of other recommendations.

Findings

Whilst the promotion of a town wide environmental weight restriction such as that illustrated in the figure would be the default level of provision to be promoted in the Study area, two key routes particularly vulnerable to exploitation by inappropriate HGV traffic have been identified;

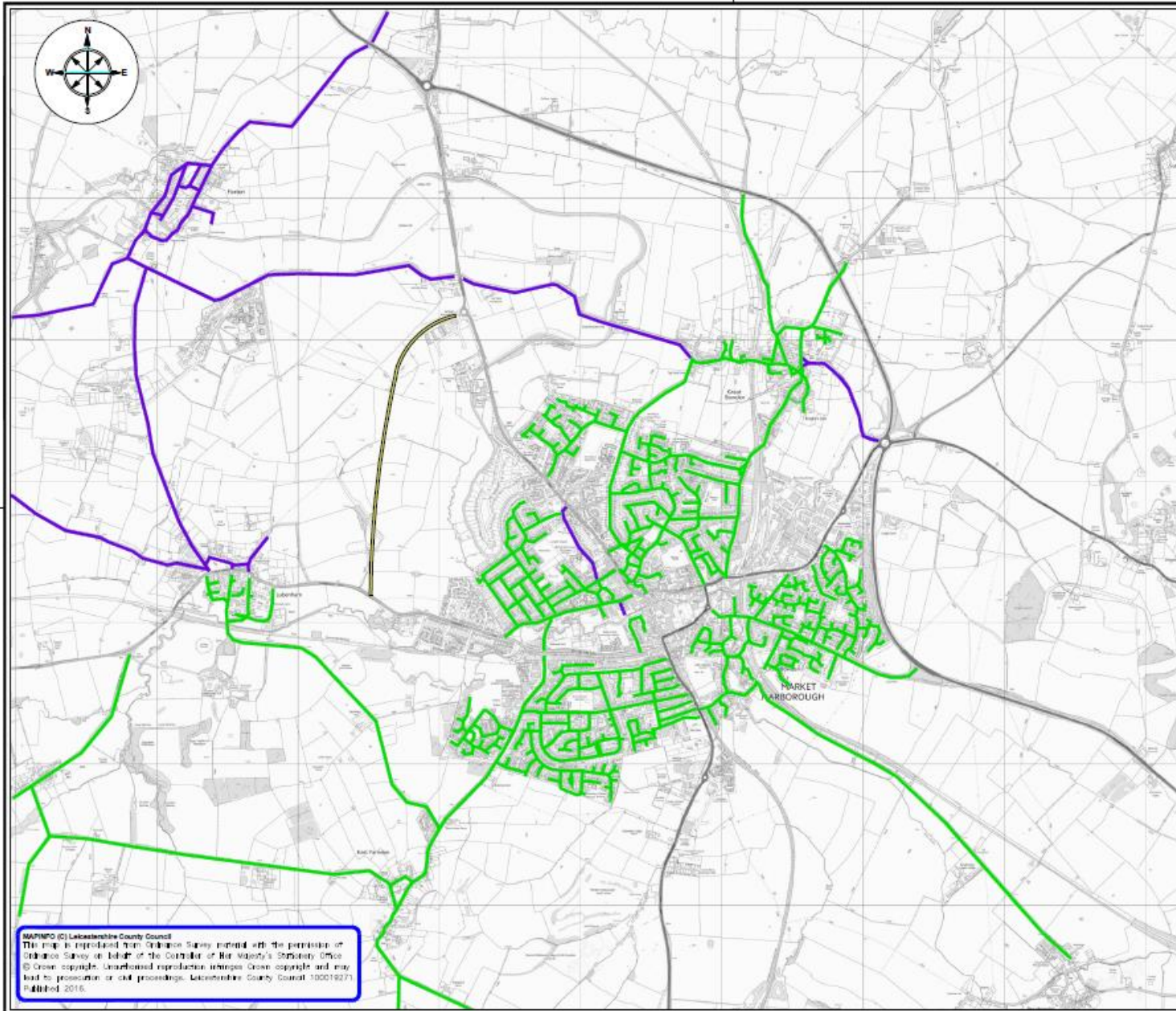
- Ashley Road /Kettering Road between the A4304 and the A6
- Bath Street/Western Avenue between the A508 and Farndon Road.

Should it not be possible to implement an extensive scheme covering the entire town; it is recommended that those 2 routes are promoted as a minimum.


Recommendation R17


Send updated map to 'sat-nav' contacts advising of HGV controls


The recommendation is to provide key satellite navigation and mapping companies (e.g. TOM TOM / Ordnance Survey) with all details pertaining to the changes in route designation, traffic orders, preferred routes etc to ensure that the records they hold are current and reflect any changes arising as a result of the Strategy.



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- 
EXISTING 7.5T ENVIRONMENTAL WEIGHT RESTRICTION (EXCEPT FOR LOADING)

- 
PROPOSED ADDITIONAL 7.5T ENVIRONMENTAL WEIGHT RESTRICTION (EXCEPT FOR LOADING)

- 
SDA LINK ROAD (ILLUSTRATIVE INDICATION)



ENVIRONMENT AND TRANSPORT DEPARTMENT


PHIL CROSSLAND
 DIRECTOR

DESIGN & DELIVERY GROUP

MARKET HARBOROUGH

TITLE:
PROPOSED 7.5T WEIGHT RESTRICTIONS WITH RECLASSIFICATION OF ROUTES & SDA LINK ROAD

DRAWING NUMBER	SCALE
N / A	NTS

PREPARED BY: R DAVIES	DATE: MARCH 2016
CHECKED BY: M ARCHER	SIZE: A3
APPROVED BY: M ARCHER	CORR. FILE:

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Recommendation R18

In light of the size and scope of the Study, incorporate/ consider maintenance activities in relation to improvement proposals.

Overview

The recommendation is to use the implementation of the schemes arising as a consequence of this report as the vehicle by which long standing maintenance aspirations can be delivered.

Rationale

The ability of the County Council to deliver maintenance, restoration and condition improvements beyond the most safety critical schemes has reduced in recent years owing to financial constraint. This issue is only likely to worsen in the future due to continued public sector austerity.

However, the delivery of those schemes can become economically viable when the benefits of economies of scale etc. afforded by the delivery of area wide schemes are taken into consideration. Any maintenance schemes delivered as a result will inevitably contribute to the objectives of the Transport Strategy as well as reduce the burden on the future maintenance budget.

Preventative maintenance works, to arrest deterioration or avoid problems from occurring at all are particularly beneficial

Scheme costs

The estimated total cost for designing and delivering the draft recommended package of infrastructure and smarter choices measures /outputs is £14.9 million (using highest cost scheme options). This excludes the SRR, which is estimated to cost in the region of £35 - £45 million. A breakdown of scheme/output costs can be found in the table.

The £14.9 million includes allowances for further scheme design and development work, risk and contingency. The schemes are at a feasibility stage and will be subject to change or re-costing as schemes or packages are developed further in the future.

Of the total scheme costs £11.7 million is allocated for the delivery of the infrastructure measures and a further £3.2 million on the complimentary smarter choices elements of the scheme. These costs have been estimated based on the costs of the delivery of schemes of a similar scale in Leicestershire; however, the scheme is currently in the early stages of development with further refinement of the measures, design work and stakeholder engagement/consultation required. An accurate estimation of costs will be determined following this additional work

Scheme Cat	Scheme Ref	TRANSPORT MEASURES/ OUTPUTS	Cost	Associated Recommendation
A	Junction capacity improvements			
	1	A6/B6047	£650,000	R1, R2
	2	The Square / St Mary's Rd / Coventry Rd	£700,000	
	3	Welland Park Rd / Northampton Rd / Springfield St (Option2)	£820,000	
	4	St Marys Rd / Kettering Rd / Clarence St	£280,000	
	5	Gores Lane / Rockingham Road (Option 2)	£450,000	
	6	A6 / Rockingham Road / Dingley Road	£1,100,000	
	7	Sainsbury's Store entrance/ Springfield Street	£600,000	
			£4,600,000	
B	Walking & cycling improvements			
	1	New routes, links, crossings etc	£3,110,000	R5-11
	2	Cycle parking	£30,000	
	3	Route signing	£60,000	
			£3,200,000	
C	Public transport improvements			
	1	Bus shelters	£32,000	R10
	2	Raised bus stop kerbs	£38,000	
	3	'Hail & Ride' conversion	£110,000	
	4	Miscellaneous (timetable cases etc)	£20,000	
			£200,000	
	Modal shift initiatives (over a four year period)			
	1	'Getting to Work & Training'	£1,200,000	R5-11
	2	'Information & Behaviour Change'	£1,200,000	
	3	Coordination & management	£800,000	
			£3,200,000	
E	Infrastructure resulting in changes to network or traffic routing			
	1	Works required to facilitate the upgrade of Welland Park Road to A4304 and respective downgrade of Coventry Road	£700,000	R3
			£700,000	
	3	South East Relief Road between the A508 and the A6	£35 – 45 million	R4
F	Traffic Management Improvements			
	1	HGV weight restrictions and update sat- nav contacts	£75,000	R16, R17, R5, R13, R12
	2	Traffic directional signing	£100,000	
	3	Parking controls , including consideration of residents parking	£25,000- £75,000	
	4	Traffic calming (in support of walking / cycling network)	£200,000 - £300,000	
			£400,000- £550,000	
G	Local improvements			
	1	Refurbishment of paved areas and street furniture	£100,000- £450,000	R18
			£100,000- £450,000	
Total Cost (excluding the SRR): £11.7 million (lowest cost scheme options) £12.9 million (highest cost scheme options)				

Table 22 : Breakdown of estimated scheme / output costs

Next Steps

The report makes recommendations for the promotion of a medium to long term (up to 2031) highway orientated transport improvement Strategy for the Study area, which will serve to:

- *Support economic and population growth in the context of future land allocation and development; ensuring the town is not adversely impacted by traffic growth, and remains a vibrant and prosperous place for people to live, work and visit.*
-
- *Form the necessary foundation on which the long term delivery of future highway/transport improvements in the study area can be based*

Through the development of a microsimulation modelling programme we will be supporting the outcomes of the Strategy in the following ways:

- Development of transport schemes;
- Provide an opportunity to understand current and likely future demand on the transport network at a detailed level and allow us to plan and design transport schemes accordingly;
- With the evidence provided through our modelling system we will ensure that our schemes and advice to developers will support our overall outcomes set out in the Strategy;
- Make decisions based on evidence;
- Understand and challenge need and manage demand;
- Challenge and review service delivery;
- Innovate in performance management; and
- Enhance sustainability

The recommended schemes outlined in this chapter provide the basis of an outline Transport Strategy for Market and incorporates stakeholder feedback. Subject to consideration by LCC and HDB members, and availability of funding, further work would be need to be undertaken to adopt a menu of preferred schemes from those recommended in the Study, to bring these schemes together into a single coherent package of improvements across the Study area.

The preferred package of schemes could then be converted into a final Strategy and delivery programme suitable for obtaining funding.

2015/16 *Study Phase 1 (Issues and Solutions) **Complete**

2016/17 Study Phase 2 (Solution Coordination, stakeholder feedback)
Complete

2016/17 Study Phase 3 (Finalise Strategy and Prepare funding bid/s)

2017/18 Scheme consultation / Detailed design

2018/19 Begin Implementation and Delivery

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