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Kettering Town Centre Transport Strategy
R12294T110-H

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EXECUTIVE SUMMARY

Introduction
In August 2008, Kettering Borough Council (KBC) issued the “Kettering Town Centre Area Action Plan, Preferred Options (the AAP).

The AAP presented wide-ranging policies to encourage and direct development to revitalise the Town Centre, to allow Kettering to achieve its potential and to accommodate future population and housing growth in Kettering and the surrounding area. The AAP also outlined changes to the transport system.

Following the consultation on the AAP, the Kettering Town Centre Transport Strategy was developed and the draft of this was released for public consultation in October 2009. Submitted comments have informed the production of this document which is the updated Transport Strategy and will be attached to the adopted AAP, becoming Kettering Borough planning policy.

Objectives
Overall the Transport Strategy will seek to improve transport conditions in Kettering and to meet the transport challenges arising from growth of the town.

An important theme running through the Strategy is the aim to encourage a modal shift to more sustainable modes of transport including through the promotion of pedestrian and cycle usage as well as access to public transport and the railway station.

Key objectives are as follows:

- **Road Network and Junctions** – to reduce congestion and allow efficient traffic circulation but without allowing traffic to dominate the Town Centre;
- **Parking** – to provide adequate parking for the successful operation, notably the retail operation, of the Town Centre;
- **Public Transport** – to promote bus services by improving the operational environment for buses and improving the general accessibility and connectivity of public transport services in the Town Centre and at the Railway Station, therefore assisting in promoting mode shift away from the private car;
- **Pedestrian and Cycle** – to improve facilities for pedestrians and cycles to ensure safe and convenient routes and thereby to assist in promoting mode shift away from cars to more sustainable modes; and
- **Public Realm** – to improve the quality of the public realm to make Kettering a more attractive place to live, work and shop.
**Road Network and Junctions**

**The Issues** – Today, roads and junctions suffer traffic congestion at various times of day and will be increasingly under pressure as the town develops and grows.

**The Objectives** – The vision for the road network is to reduce traffic congestion and to provide good access and efficient circulation whilst not allowing traffic to dominate the Centre.

**The Proposals** – The Strategy is underpinned by the development of a two-way traffic route around the Centre of a nature and scale consistent with the structure of the Town. The specific proposals (such as junction detailed designs) will be consulted upon at a later date and the purpose of this document is to inform and seek consultation upon the overall vision. The two-way road system will be achieved through a programme of road and junction reconfigurations and improvements and can be divided into two broad sectors:

**West and south of the Town Centre**
- The configuration of Lower Street, Northfield Avenue, Northampton Road and Bowling Green Road will (broadly) remain as today;
- Improvements will mainly be in the form of junction modifications designed to address existing capacity issues and provide reasonable levels of capacity for future traffic flows within reasonable costs and recognising physical constraints; and
- The improvements will reduce congestion and will have wide benefits, not only in time saved for road users but improved bus reliability, reduced vehicle emissions and lower accident rates.

**North and east of the Town Centre**
- The existing one-way operation of Eskdaill St and Victoria St will be changed to two-way operation;
- Whilst scheme design will minimise land-property acquisition, the delivery of the two-way system, will require some alignment changes (for safety and geometric reasons) and limited land/property acquisition;
- There will be some reduction in on-street parking but this will be compensated for by better enforcement of existing on-street parking provision; and
- Through-traffic will be discouraged from Silver St and Montagu St.
Parking

The Issues – Overall, parking provision in the Town Centre is adequate for present levels of demand, however it is inefficiently used with some car parks, such as those at Wadcroft and Sainsbury's, experiencing considerable pressure. A future expansion in the shopping development in the Centre will increase demand and will exacerbate problems if not properly mitigated.

The Objectives – Whilst it is never possible to provide limitless parking, a pragmatic approach is proposed to provide adequate parking for the successful operation, notably the retail operation, of the Town Centre.

Off Street Parking Proposals – The Strategy proposes to:
- Provide new multi-storey parking to support new development at the new Wadcroft shopping centre and at an “interceptor” car park west of the Station;
- Use tried-and-tested technology to make best use of existing parking provision. Better management will be sought by the installation of a variable message signage system to indicate parking availability and to direct drivers to the most appropriate parking destination; and
- Seek an improved parking charging structure to manage parking to appropriate locations; for example, long-term parking for commuters should be accommodated in areas such as a new proposed “interceptor” car park west of the railway Station and parking near the Council Offices, thereby freeing the car parks nearer the main shopping centres for short-term use by shoppers.

On Street Parking Proposals – On-street parking should be used for short stays; the Strategy proposes to ensure that:
- Adequate facilities are provided for parking for loading, servicing and disabled users; and
- Illegally parked vehicles do not obstruct movement and the Strategy therefore addresses the issue of parking enforcement and seeks to ensure that short-term parking provisions are not misused, hence are available for their intended purpose which is short stay and rapid turnover.
Public Transport – Buses

The Issues – The existing bus system is underutilised and offers limited encouragement to shift from car to sustainable modes such as buses.

The Objectives – The Strategy offers an opportunity to encourage bus use and to reduce the environmental impact of motorised trips.

The Proposals – The Strategy proposes measures to enable bus services to operate in a commercially successful way and thereby offer the opportunity to increase the number of buses and range of routes and help create a ‘virtuous circle’ for all those who live, work and shop in Kettering. The Strategy proposes that:

- The reduced traffic congestion and improved junctions from the Road Strategy will enable buses to operate more efficiently and to make them a more attractive option. Where possible, bus measures will seek to prioritise bus access for key routes and give them preference over private vehicles in appropriate circumstances;
- The Road Strategy will offer the opportunity for bus route redistribution to enable buses to run more efficiently and take users closer to where they want to go;
- A new purpose-built bus interchange will be constructed at the Railway Station to facilitate interchange with rail services linking to locations such as Corby, Bedford and London;
- A new purpose-built bus interchange will be constructed at Horsemarket as part of the Public Realm Phases 2&3 works. This will provide a centralised and high-quality point of access for users in the Town Centre;
- New stop(s) will be provided on Northampton Road and services which serve the west of Town will be extended to provide a new “hop-on-hop-off”-style service.
- Programmes to make buses more “user friendly” will continue such as further installation of real-time information displays at bus stops;
- Further technology will be considered notably the use of bus detectors at traffic signals to reduce delays to buses; and
- Changes to the on-street parking and enforcement situation will remove obstructive parking from kerbsides at key locations, further improving the bus user experience.
Pedestrians and Cyclists

The Issues – Pedestrian and cycling conditions are improving in Kettering but more needs to be done to encourage these sustainable and healthy modes.

The Objectives – To improve facilities for pedestrians and cycles to ensure safe and convenient routes and thereby to assist in promoting mode shift away from cars to more sustainable modes. The aim is to make walking and cycling, once again, an enjoyable mode choice for local access to, from and within the Town Centre. Such measures will assist in further rejuvenating the area and help to secure a sustainable future for Kettering.

The Proposals – For cycling, the Strategy builds upon the ‘Green Links’ proposals which were consulted upon in December 2008 and are currently being implemented. The programme will comprise targeted improvements, aimed at connecting and making best use of existing infrastructure and at creating a coherent network of high-quality access routes within the Town Centre. Measures will comprise:

- On and off-road cycle routes;
- Promoters of new development will be required to provide both staff and user/visitor cycle parking;
- Improved cycle access will be provided to key destinations, such as the Railway Station and the links between the Station, west Kettering and the Town Centre will be promoted; and
- Measures to help cycles at individual junctions will be included as part of the Road Network and Junction programme.

For pedestrians, the Town Centre itself will undergo major public realm improvements as part of the Suite 16 programme of regeneration and proposals will interleave with this programme to provide high-quality links within all the main parts of the regenerated Town Centre. The balance of shared space between cycles and pedestrians in areas such as the High Street is a matter for subsequent consultation.
Public Realm

The Issues – The public realm of Town Centre is not always of a high standard and improvements are needed to regenerate the area. Any improvements must be a balance between the historic town and the need to meet modern development.

The Objectives – To improve the quality of the public realm to make Kettering a more attractive place to live, work and shop.

The Measures – Typical public realm measures have already been completed in Market Place and will form a guide and demonstration of what can be achieved for other areas. Measures are proposed to improve key focal points in the Town Centre including Market Street/Sheep Street, Station Road, Meadow Road and the rejuvenation of the High Street. Emphasis will be placed on good design in keeping with Kettering’s past and will ensure construction of a high standard. Measures will include:

- Integration with, and function as an essential part of, the Pedestrian and Cycle Strategy;
- Alternative facilities for servicing and access to frontage premises and businesses as some schemes will reduce direct vehicle access to frontage properties of various roads;
- Good accessibility to public transport (e.g. buses and rail);
- Retained and improved accessibility for disabled users; and
- Integration with other traffic improvement and development measures.

Public realm improvements are not envisaged as “stand-alone” schemes – the measures are part of the wider strategy for the development of the transport network and all new or improved roads/junctions will also embody a good standard of public realm design. A Public Realm Guideline is being developed that will establish the palette of materials, signage, planting, open space etc to ensure this consistency and will be a condition of future developments.
Overall Transport Strategy

The pedestrian, cycle, bus, rail users, road and parking components must be balanced and combined to form an overall Transport Strategy for Kettering Town Centre. The proposed strategy is shown below:
1. INTRODUCTION

1.1 General Introduction

1.1.1 In August 2008, Kettering Borough Council (KBC) issued the “Kettering Town Centre Area Action Plan, Preferred Options – August 2008” (AAP) document.

1.1.2 The AAP set out the context for the development and regeneration of Kettering Town Centre within the context of the Milton Keynes South Midlands (MKSM) Growth Area. The AAP presented wide ranging policies to encourage and direct development to revitalise the Town Centre and proposed redevelopment in a series of distinct but integrated “quarters” (see Figure 1.1).

![Figure 1.1: Area Action Plan Development Area Designations](image)

1.1.3 The AAP recognised that a sound transport strategy is necessary to support the regeneration and development policies and defined the Preferred Policy Direction (KTC10) for an “Access, Movement and Structural Strategy” in Section 8. The key direction was defined as:

“The preferred approach is to adopt an overall access and movement strategy which seeks a modal shift to more sustainable modes of transport including the promotion of pedestrian and cycle usage as well as access to public transport and the railway...
station. Development should support the hierarchy of streets and recognise that access and movement is closely related to the public realm.”

1.1.4 The AAP suggested the directions to achieve these broad policy aims and outlined a sustainable approach which:

- Included physical measures – public transport, pedestrian and cycle access, improved access and traffic circulation, without encouraging unnecessary car trips, to form an integrated transport strategy;
- Placed emphasis on public transport, pedestrian/cycle access and sustainable transport through the application of a user hierarchy (in order of descending priority: pedestrians, cyclists, bus/public transport, private cars); and
- Established the linkage between development, transport solutions and urban design/public realm.

1.1.5 The Transport Strategy also has to accommodate the predicted growth in the Kettering area and the wider MKSM sub-region. The MKSM growth area is designated as one of the major national areas for housing growth in the UK in the next 25 years (some 170000 new homes). Kettering and a number of other local towns in the North Northamptonshire area are designated to be the focus of the growth in this region and will accommodate over 50000 new homes by 2021 (and up to a possible additional 28000 in the following 10 years). Some 13100 of these new homes will be provided in Kettering Borough with 5500 new homes provided in the new East Kettering Development. Strategic regional traffic modelling based on these growth predictions suggests that Kettering’s transport network will be required to accommodate a significantly greater number of trips in future years.

1.1.6 Recognising that the revitalisation of the Town Centre will require new development, the AAP also outlined guidelines as conditions of new developments including policies that:

- Development should promote modal shift to sustainable modes; and
- Development should provide access in the following priority order:
  - Pedestrians;
  - Cyclists;
  - Bus/public transport; and
  - Only where necessary and justified, private cars.

1.1.7 Following the consultation on the AAP, the Kettering Town Centre Transport Strategy was developed and the draft of this (Ref: R12294T110-D) was released for public consultation in October 2009. Submitted comments have informed the production of this document which is the updated Transport Strategy and will be attached to the adopted AAP, becoming Kettering Borough planning policy.

1.2 Previous Studies

1.2.1 Northamptonshire County Council (NCC) is the highway authority for major (and most minor) roads in Kettering. NCC has developed a “Transport Strategy for Growth”¹ which, based upon the predicted regional increases in traffic indicated by the SATURN modelling undertaken, assessed the implications of this growth. Various basic traffic circulation options were considered at a strategic level and after discussion with KBC, a policy decision was taken to adopt “Option 2”. The underlying principle of Option 2 is to create a two-way main road corridor around the Town Centre. The objective of this is to provide good access and efficient traffic circulation but without allowing traffic to dominate the town.

¹ Transport Strategy for Growth – Kettering Town Strategy, Northamptonshire County Council, Jan 2007
1.2.2 The proposal in the “Transport Strategy for Growth” was developed at a strategic level. Subsequently various studies and design investigations have been undertaken to develop the road proposals included, in principle, in Option 2, into “real schemes” at feasibility and prefeasibility levels.

1.2.3 In addition to the development of the road network, other investigations have been progressed on other elements of the AAP Town Centre Strategy both for transport and development aspects. The status of the various studies and projects which have informed the Transport Strategy is:

- The Kettering Town Centre Highways Study Report, WSP May 2009. The report presents feasibility studies for the road network in the NE Quadrant of the Town Centre; these are essential to complete the two way road around the centre. Feasibility designs were prepared for Eskdall Street, Montagu Street, Victoria Street, Queen Street and associated junctions and the results are summarised in this Transport Strategy report;
- Market Square public realm improvement; officially opened 30th August 2009;
- Development of the Wadcroft area for the Shopping Quarter by Pell Frischmann (PF) in association with Gillespies and Cushman & Wakefield. A draft the report defined a proposed major retail development for the area (April 2009); the report is currently being finalised;
- Development of Soans Yard by PF in association with Gillespies and Cushman & Wakefield. A draft report defined a proposed retail/residential/craft workshop development strategy (June 2009) and the report is currently being finalised;
- Development of Station Quarter by PF in association with Gillespies and Cushman & Wakefield which set out the framework for the proposed bus/rail interchange, station parking and business and hotel development (April 2009) and the public realm improvement of the Station Road linkage between the Station and Town Centre. The outline draft proposals are currently being discussed with Network Rail as the prime landowner for the area east of the Station/rail line;
- Pre-feasibility study of Public Realm Improvements for Sheep Street, (ABA Baxters);
- The Public Realm Strategy currently under production by Gillespies; and
- Detailed development and design of the Public Realm Stages 2/3 for Sheep Street and Market Street – commissioned July 2009; feasibility report issued October 2009, detail design underway (as at March 2010) and site works due to commence end May 2010.

1.2.4 It is evident that these proposals will influence, and will be influenced by, the Transport Strategy for the Town Centre. Therefore, in May 2009, KBC requested that PF integrate the various transport, public realm and development proposals to assemble a coherent transport strategy for the Town Centre – the results are presented in this report.

1.3 Objectives of the Report

1.3.1 An integrated Transport Strategy is required which recognises and rationalises previous transport development work, prepares proposals for elements not included in previous design or planning work (such as various junctions or parking details) and supports the AAP. The objective of the current Transport Strategy Report is to assist
this process by developing the Transport Strategy to a stage where KBC can consult the public for their views.

1.3.2 While the fundamental starting point for the development of the Transport Strategy is the basic two-way road network, previously described as Option 2, there are options for various other aspects (such as the treatment of bus services or public realm improvements). This report presents the Preferred Option built upon the basic two-way road network – the latter was taken as a “given” element.

1.4 Scope of the Report

1.4.1 The Report includes the following:

- Section 2 – Overview of the Strategy;
- Section 3 – Detailed Development – Road Network and Junctions;
- Section 4 – Detailed Development – Parking;
- Section 5 – Detailed Development – Public Transport – Bus Strategy;
- Section 6 – Detailed Development – Public Transport – Station Area Transport Interchange/Hub;
- Section 7 – Detailed Development – Pedestrian/Cycle Network;
- Section 8 – Detailed Development – Public Realm Schemes; and
- Section 9 – Detailed Development – Cost.
2. OVERVIEW OF THE STRATEGY

2.1 Objectives

2.1.1 Objectives of the Transport Strategy for the Town Centre – overall, the access and movement strategy seeks a modal shift to more sustainable modes of transport including through the promotion of pedestrian and cycle usage as well as access to public transport and the railway station. Within the strategy, there are instrumental objectives for each main transport elements, which taken together, seek to enable the overall goal. These are outlined as follows:

- **Road Network** – to promote a traffic/road system which allows good access and efficient traffic circulation but without allowing traffic to dominate the Town Centre. The network must address current identified issues (such as severance and congestion) and, in addition, cater for reasonable future growth in traffic levels precipitated by the significant growth in housing planned in the Milton Keynes South Midlands sub-region.

- **Public Realm** – to improve the quality of the public realm to make Kettering a more attractive place to live, work and shop. Public realm proposals are an integral part of the Transport Strategy since it is proposed to integrate the necessary improvements through traffic restrictions coupled with pedestrian, cycle and disabled facilities on a number of streets; such schemes have implications for servicing, access and bus routes.

- **Public Transport** – to promote bus services by improving the operational environment for buses, improving accessibility and improving penetration of bus services to the Town Centre. This will have the combined effect of improving access for those who rely on the bus (e.g. the young, elderly and disabled) and improving the commercial viability of services by providing new users who choose to use the services on offer. This choice will assist in promoting mode shift away from private cars to buses.

- **Parking** – to provide adequate parking for the successful economic operation of the Town Centre and to seek a balance between car access and the promotion of more sustainable travel modes. Retention of access and parking for disabled users will be essential. The strategy covers both on and off road parking facilities and policies.

- **Pedestrian and Cycle** – to improve facilities for pedestrians and cycles to ensure safe and convenient routes; increasing permeability and legibility for pedestrians and allowing cyclists to follow desire lines more closely thus increasing the utility of the mode. Also, improving facilities to modern disabled accessibility standards, thereby assisting in promoting mode shift away from cars to more sustainable modes and ensuring that the historic legacy of poor accessibility is addressed.

- **Environmental** – through the combined effect of the above aspects of the Strategy, improvements can be effected. Reduced congestion and an increased mode share for walking and cycling will lead to improved air quality and a reduction in noise and vibration. These will lead to a consequently improved level of health and amenity for Kettering residents. The reduction in traffic within the Town Centre will reduce severance and increase accessibility across the whole of the Town Centre and considerably improve integration between the eastern and western half of the Town Centre retail areas.

2.1.2 Combination of Measures – the Strategy combines various elements to achieve the overall objective. As with any urban area, the scope for new provisions and variation between possible strategies at an acceptable cost is constrained by numerous factors, which in Kettering are:
• the extent of the existing pedestrianisation of the Town Centre;
• committed policy decisions, notably the two way Eskdaill Street/Victoria Street/Queen Street scheme;
• the existing major retail developments, their associated car parks and accesses (Newlands, Morrisons, Sainsbury's etc.);
• committed public realm schemes, (e.g. Market Place and the imminent, Sheep Street and Market Street schemes);
• retaining the historic character and form of the street pattern;
• proposed development plans (e.g. Wadcroft retail centre); and
• KBC aspirations for various key areas (the Station, the Sheep Street/Market Street link etc.).

2.1.3 Therefore, various transport elements have to be balanced and trade-offs made – for example, extensive pedestrianisation may not be completely compatible with bus route penetration of the Town Centre as a full pedestrianisation scheme may disadvantage buses. Trade-offs must be made between objectives, coupled with the operational requirements, of individual modes and practical considerations made of affordability, time for implementation and public acceptability.

2.2 Alternatives Considered Within the Transport Strategy

2.2.1 As previously noted, the Transport Strategy for the Town Centre is underpinned by the creation of the two-way traffic route around the Centre as shown in Drawing D12226T036. The aim of the road network is to create a two-way main road corridor around the Town Centre; thereby providing good access and efficient traffic circulation but without allowing traffic to dominate the town. The two-way traffic route emerged from a transport planning study carried out by consultants Atkins (North Northamptonshire Transport Model: Development Impacts - Kettering East) for NCC and in discussion with KBC. The study evaluated various strategic road networks (based on a county-wide SATURN transport model) which were articulated in the AAP Preferred Options and were consequently built upon the baseline established by ABA in the AAP LDF Baseline Report (July 2008). The preferred option is in line with best practice as summarised in the Manual for Streets (DfT & DCLG, 2007) in that it re-establishes the user and street hierarchy in Kettering and supports the development of roads as quality and inclusive places. Consequently, in preparing the present integrated Transport Strategy for Kettering Town Centre, it has been taken that that this form of road network is a “committed policy decision” and no further strategic traffic analysis has been carried out.

2.2.2 Within the main road network, a number of physical layout options were considered

• To improve junctions; the preferred solutions are presented in subsequent sections; and
• To improve the public realm while, at the same time, improving pedestrian/cycle facilities and opportunities for bus routes. Four basic schemes were considered; the essential difference was the extent to which buses accessed the existing and new developments in combination with the KBC aspiration to improve public realm and extend pedestrian and cycle facilities, notably in Market Street and Sheep Street. Through an extensive process of stakeholder/public consultation, internal (to KBC) consideration and option refinement, Option 4 was selected. The primary effect of this (on the wider Strategy) is the closure to through-traffic of Market Street and the provision of a new, purpose-built bus interchange at Horsemarket. The implications of this were the subject of detailed study (see Section 1 “Detailed development and design of the Public Realm Stages 2/3 for
Sheep Street and Market Street”, and the feasibility report for this Ref: R12215C051 was issued in October 2009).

2.2.3 The Road Network and the locations of Junction Improvements are shown in drawing D12226T036 and the Transport Strategy is summarised as a whole in Drawing D12226T100.
2.2.4 The key characteristics of the Transport Strategy are:

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3. DETAILED DEVELOPMENT – ROAD NETWORK AND JUNCTIONS

3.1 Objectives of the Road Network Strategy

3.1.1 The objective of the Town Centre Road Network Strategy is to promote a road traffic system which allows good access and efficient traffic circulation within, and to/from, the Town Centre but without allowing traffic to dominate.

3.1.2 The network should seek to reduce overall traffic congestion and must support the travel demands generated by the proposed intensive redevelopment of the Town Centre, expansion of the Kettering urban area, other housing growth in the Borough and sub-regional and regional growth in the North Northamptonshire and East Midlands areas.

3.2 Status of Network Development

3.2.1 The Strategy will be achieved through a programme of road and junction reconfigurations and improvements. Measures have been sought which make best use of existing rights-of-way but, where necessary, limited road widening will be needed and it is inevitable that some land acquisition will be required in key locations.

3.2.2 Section 2 noted that the basic form of the future main road network in Kettering Town Centre has been determined as a result of previous studies and consequently the policy decision has been taken to adopt “a two-way road around the Centre” (see Drawing D12226T036). As with the road network in any urban area, the performance of key junctions determines traffic capacity and efficiency of traffic operation of the network as a whole. Therefore, it has been necessary to determine if existing junctions are adequate to accommodate future traffic flows and, if not, what mitigation and/or improvement measures are required. Furthermore, the necessary widening of existing roads to provide the two-way route configuration has implications for the junctions along the route. Two consultancy commissions have been undertaken to determine junction (and where necessary link) requirements:

- Highway Improvement Study by WSP (June 2009) which has developed schemes for roads and junctions in the NE Sector of the Town Centre to enable the two-way road to be realised. The Study included traffic capacity analysis, geometric design, cost estimates and property acquisition requirements. The findings and recommended junction/road designs have been taken as inputs to the present Transport Strategy. Specifically, designs were produced for the following junctions (see Figure 3.1). The capacity and operating assessments are presented in WSP’s report noted in Section 2 for:
  - Junction of Eskdaill Street/Rockingham Road;
  - Junction of Montagu Street/Eskdaill Street;
  - Junction of Silver Street/Montagu Street;
  - Junction of Victoria Street/Queen Street;
  - Junction of Queen Street/Horse Market; and
  - Road links between junctions on Eskdaill Street, Victoria Street, Montagu Street and Queen Street.

The main link changes are as follows:
3.2.3 The analysis and justification for the two-way road links and associated junctions are set out in the Kettering Town Centre Highways Study Report, WSP May 2009 and resulting network is shown in Figure 3.1. In summary, the main benefits are:

- A reduction in unnecessary and circuitous vehicle trips;
- A reduction in severance and increase in connectivity within the Town Centre including the further integration of the eastern part of the Town Centre;
- Improved connectivity from the south to the north of the town;
- Improved air quality due to reduced congestion;
- Improved bus access; and
- Capacity to accommodate future traffic growth in the town and sub-region.

3.2.4 A limited amount of land-property acquisition is necessary to achieve the two-way route and the areas concerned are indicated on Figure 3.1. KBC are in the process of opening discussions and consultations with the land owners/occupiers.

3.2.5 The remainder of Section 3 of this report presents descriptions, and figures of, the preferred options for the “residual junctions”.

### Table: Existing One-Way Link vs Proposed Two-Way Link

<table>
<thead>
<tr>
<th>Existing One-Way Link</th>
<th>Proposed Two-Way Link</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver Street</td>
<td>Silver Street</td>
</tr>
<tr>
<td>Eskdaill Street</td>
<td>Montagu Street (with possible westbound bus priority)</td>
</tr>
<tr>
<td>Montagu Street</td>
<td>Eskdaill Street</td>
</tr>
<tr>
<td>Victoria Street</td>
<td>Victoria Street</td>
</tr>
</tbody>
</table>

- The current Transport Strategy report which has considered the “residual junctions” along the two-way road namely:
  - Rothwell Road Roundabout;
  - Junction of Northfield Avenue and Trafalgar Road (this is a new junction which is proposed to replace the existing junction of Northfield Avenue and Meadow Road);
  - Junction of Northfield Avenue and Northampton Road; and
  - Junction of Northampton Road, Sheep Street, Station Road and Bowling Green Road.
Figure 3.1a: Two Way Links and Junction Designs
(Source WSP Consultants-NCC)
Property required for the provision of visibility
Building required for the provision of visibility
Grass verge required for the provision of visibility

Figure 3.1b: Two Way Links and Junction Designs
(Source WSP Consultants-NCC)
3.3 Development of “Residual Junctions” Proposals

3.3.1 Location – the locations of the “residual junctions” are shown in Drawing D12226T036.

3.3.2 Existing traffic flows – as a base for development of junction schemes, existing traffic flows were determined from surveys; these comprised traffic turning movement counts undertaken on Wednesday, 10th June 2009 at all main junctions within the Town Centre. The results of the surveys will be included in a separate survey report but have been used in the analysis of junctions described in this Section. It is noted that existing flows are in excess of capacity at a number of current junctions and, as a minimum, proposals must address these issues.

3.3.3 Future demand – future traffic demand will increase (in the absence of town-wide restraint mechanisms which are not proposed) due to two factors:

- The overall trend in traffic demand arising from national/regional/local growth. It is standard practice to use TEMPRO growth factors, published by the Department of Transport to estimate this future growth and has been done in the present case; and
- Specific traffic growth arising from local development proposals (these may be inherent in general terms within the TEMPRO growth factors but do not necessarily recognise specific growth points at the “microscopic level”).

3.3.4 Future traffic flows – the standard transport planning practice to assess future traffic flows on a network-wide basis is to use some form of traffic (or transport) model which recognises growth and which assigns future demand to the road network. Northamptonshire County Council (NCC) commissioned such a traffic model in 2006 (based on the standard SATURN software) to assess future traffic demand on a county-wide basis. The model has been used for previous traffic planning in Kettering and model results for Kettering Town Centre have been abstracted to assist in planning of the “Residual Junctions” in the present assessment. The SATURN model results for Kettering Town Centre have been compared with the existing traffic flows and with future predicted flows. Generally, the comparison showed:

- Major differences in future demand predicted by the SATURN model compared to existing traffic flows; in general, the SATURN flows are substantially lower than existing traffic flows; and
- The distribution of traffic flows at junctions from the SATURN model is not consistent with future development in the Town Centre.

3.3.5 These differences are not a criticism of the SATURN model nor do they invalidate the previous strategic traffic planning work – the model was developed to assess county-wide traffic impacts at the macroscopic scale and employing the model to provide detailed traffic movements at individual junctions (i.e. the microscopic scale) is over-extending its capabilities. Thus, a pragmatic approach to the traffic assessment of junctions has been adopted. The proposed junctions have been assessed against traffic flows which comprised estimated 2021 traffic flows, obtained by increasing existing flows (themselves obtained from surveys of existing traffic), using a growth factor derived from area-wide TEMPRO growth factors. To give an upper bound (essentially a worst-case scenario used to ensure robust designs), traffic additions were made to reflect site-specific developments in the Town Centre and these additions were distributed to the road network, generally reflecting existing traffic turning proportions at nearby junctions, but also to reflect changes in the road network strategy.
3.3.6 The methodology (undertaken in collaboration with NCC) for the production of these traffic estimates is detailed separately in Traffic Flow Distribution Methodology (Ref: R12294T565) but in summary:

- The existing surveys (from June 2009) have been taken as an appropriate starting point;
- A series of flow redistributions have been made due to the new two-way system;
- A series of flow redistributions have been made due to other changes to the road network such as:
  - Changes to street organisation around the Station;
  - Changes to street organisation around Horsemarket; and
  - Changes due to the closure of Market Street.
- Traffic has been grown using TEMPRO factoring to account for the background growth in traffic expected until 2021 (the horizon year in this case); and
- Trips generated by proposed new development have been added to the network.

3.3.7 The flows derived are based on logical and robust assumptions and have been added to the network in such a way as to give highly robust, “worst-case” scenario traffic flows which have a much greater level of realism and applicability than those derived from the SATURN modelling discussed above.

3.4 Junction Pre-feasibility Design

3.4.1 Junction pre-feasibility investigations have been undertaken as part of this Transport Strategy study for the "residual junctions" and, in discussion with Northampton County Council Highways department (the highway authority), preferred options were selected. The reference numbers for the junctions considered are shown in Drawing D12226T036 in Section 2. Various junction arrangements have been investigated and schemes considered are listed in Table 3.1:

- **Traffic Control** – alternatives have been investigated (such as traffic signals with varying stage arrangements, roundabouts or schemes with and without land take) to accommodate predicted traffic flows; and
- **Physical Layout** – alternative junction layouts were developed for assessment and the preferred schemes are presented in the following drawings.
Table 3.1: Tested Junction Pre-feasibility Options

<table>
<thead>
<tr>
<th>Junction ID (see Drawing D12226T036)</th>
<th>Location</th>
<th>Type (drawing number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1</td>
<td>Rothwell Road Roundabout</td>
<td>Roundabout (D12226T511)</td>
</tr>
<tr>
<td>1.2</td>
<td>Rothwell Road Roundabout</td>
<td>Signals</td>
</tr>
<tr>
<td>2.1</td>
<td>Trafalgar Road/Northfield Avenue</td>
<td>Roundabout</td>
</tr>
<tr>
<td>2.2</td>
<td>Trafalgar Road/Northfield Avenue</td>
<td>Signals (D12226T522)</td>
</tr>
<tr>
<td>3.1</td>
<td>Northampton Road/Northfield Avenue</td>
<td>Signals (minor modifications)</td>
</tr>
<tr>
<td>3.2</td>
<td>Northampton Road/Northfield Avenue</td>
<td>Signals (major modifications)</td>
</tr>
<tr>
<td>3.3</td>
<td>Northampton Road/Northfield Avenue</td>
<td>Roundabout</td>
</tr>
<tr>
<td>3.4</td>
<td>Northampton Road/Northfield Avenue</td>
<td>Double Roundabout</td>
</tr>
<tr>
<td>3.6</td>
<td>Northampton Road/Northfield Avenue</td>
<td>Double Roundabout with specified land-take and off-road cycle facilities (D12226T533)</td>
</tr>
<tr>
<td>4.1</td>
<td>Northampton Road/Station Road/Sheep Street/Bowling Green Road</td>
<td>Signals</td>
</tr>
<tr>
<td>4.2</td>
<td>Northampton Road/Station Road/Sheep Street/Bowling Green Road</td>
<td>Mini-roundabouts</td>
</tr>
<tr>
<td>4.3</td>
<td>Northampton Road/Station Road/Sheep Street/Bowling Green Road</td>
<td>Roundabouts</td>
</tr>
<tr>
<td>4.4</td>
<td>Northampton Road/Station Road/Sheep Street/Bowling Green Road</td>
<td>Signal-mini-roundabout combination (D12226T544)</td>
</tr>
</tbody>
</table>

Note: Preferred scheme coloured thus

3.5 Junction 1 – Rothwell Road Roundabout

3.5.1 Two categories of options were tested: roundabout and signals. The roundabout option represented an improvement and modification of the existing to accommodate the future growth and deal with current (anecdotal) capacity constraints.

3.5.2 Forecast (and current) traffic flows at the junction feature relatively high turning flows. The location of the junction imposes some considerable constraints on the junction. The most important of these are the narrow railway bridge directly to the west of the junction, the existing land ownership to the northwest, the river to the northeast/east and the allotment green-space to the southwest. Congestion is highly undesirable at this junction as it is a main access to the Town Centre from the west and north, is in close proximity to the Hospital and is therefore a key emergency response route.

3.5.3 If the junction were to be signalised, the high flow levels at the junction demand a capacious storage area behind the stop line. The constraints around the junction reduce the length of approach flare that can be provided and therefore wide stop lines (in the order of 4 lanes) would be required. The result is an extremely large land take and whilst facilities for pedestrians and cyclists can be included from the outset, the wide crossings and need for staggered crossings (for capacity purposes) actually would provide a relatively poor pedestrian experience. Furthermore the large expanse, the large amount of signal equipment, ducting etc. required would render the junction
prohibitively expensive if signals were pursued. If a smaller junction arrangement were pursued, the resulting congestion would be extensive and have wide-ranging impacts throughout much of the north and western parts of the Town.

3.5.4 The more reasonable alternative is to apply incremental improvement to the existing roundabout to facilitate the future growth and remedy the existing issues. The existing junction is reported to operate over-capacity in the peak hours (although it is noted that this is not corroborated by ARCADY modelling). The current layout is sub-standard with regard entry flares and radii and has limited markings. More efficient use of the existing layout is almost certainly possible with more appropriate markings and this may explain the discrepancy between reported congestion and ARCADY outputs. This issue aside, modelling indicates that the existing layout would be unable to cope with future flow levels. Entry flares have been improved and increased in combination with entry widths to further improve capacity and the existing large footprint allows this to be achieved by reducing the diameter of the roundabout (with a minimal impact on overall capacity) and making this provision within the existing footprint. Left-turn bypass lanes are proposed on some arms to improve the operation of the roundabout for the remaining turning traffic.

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Scheme 1.1 (D12226T511)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Reduction of roundabout diameter to facilitate movement of the centroid of the circulating carriageway to the south-east and improvement of entries and flares. Additionally, multiple left-turn segregations, line painting and marking improvements to improve capacity and achieve best use of road space.</td>
</tr>
<tr>
<td>Land take</td>
<td>Reduction in ICD facilitates increases in arm geometric dimensions within existing footprint – all within highway limits</td>
</tr>
<tr>
<td>Implementation</td>
<td>Improvements can be undertaken with junction open to traffic and closures limited to night time for line painting etc.</td>
</tr>
<tr>
<td>Acceptability</td>
<td>Essentially an improvement on the existing layout and represents maximisation of existing network infrastructure.</td>
</tr>
<tr>
<td>Cost</td>
<td>“Low”</td>
</tr>
<tr>
<td>Operation-Capacity</td>
<td>The junction operates below 85% RFC in all future peak flow scenarios.</td>
</tr>
<tr>
<td>Traffic</td>
<td>Queuing is minimal in the peaks and the junction type means that delay is minimised in off-peak, low flow conditions.</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>Crossing facilitates are away from the junction as today; this deflects desire lines.</td>
</tr>
<tr>
<td>Cycle</td>
<td>Signed routes are available away from (or off-road at) this junction but large roundabouts are not conducive to cyclist comfort.</td>
</tr>
<tr>
<td>Total (+ve = 1 and -ve = -1)</td>
<td>+8 (“+ve’s” = 10, “-ve’s” = 2)</td>
</tr>
</tbody>
</table>
3.6 Junction 2 – Trafalgar Road x Northfield Avenue

3.6.1 This new junction is proposed to replace the existing junction between Northfield Avenue and Meadow Road with a new junction to its north which will connect with a new extension of Trafalgar Road. This junction is proposed to facilitate an access to the new Wadcroft development and the New Residential Quarter whilst removing the current congestion caused by the mini-roundabout at the junction with Meadow Road. Meadow Road will be downgraded to become a pedestrian and cycle only link. Options were proposed based on roundabout and signal control.

3.6.2 The new junction is not constrained by existing land take constraints as it is a new junction; however, this means that constraints are located close to the road on both sides. To the west, the southern end of the allotment green-space, which is located between Meadow Road and the railway line, impedes significant widening. On the east, the River Ise runs roughly parallel to the road.

3.6.3 A roundabout can operate efficiently in this location and represents a “least-delay” option. However, the high level of right turning traffic necessitates a roundabout with a land take required to both sides of Meadow Road to an extent which will encroach unacceptably into the allotment land and which will require a substantial structure or diversion of the River.

3.6.4 As with Junction 1 above, a signal option which can accommodate all future predicted traffic is substantial. However, by making some rationalisation it is possible to produce a scheme which balances the need for excessive land take, flares and stop line width with land and cost constraints. The result is an option for signal control which can accommodate future traffic flows. Such flows would be approaching the maximum modelled capacity for the signals however if there was a need for further upgrade in the long-term then this could be achieved with a much smaller incremental cost and disruption than one to a roundabout in this circumstance. Furthermore, if signal control was achieved by use of intelligent control, such as MOVA, combined with demand dependent staging, then the junction will operate with a greater efficiency than the LinSig modelling indicates. Other benefits to this form of junction control are the easier integration of pedestrian facilities and the comparatively cycle-friendly nature of the junction which can be improved further with the inclusion of advanced cycle stop line facilities, the ability for it to be constructed within the existing highway ownership and without an unnecessarily large structure (or diversion of) the River.
<table>
<thead>
<tr>
<th>Criterion</th>
<th>Scheme 2.2 (D12226T522)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>New signal junction on Northfield Avenue to connect to new Trafalgar Rd link</td>
</tr>
<tr>
<td>Land take</td>
<td>++ Within existing public ownership</td>
</tr>
<tr>
<td>Implementation</td>
<td>+ Can be implemented without major closures to traffic</td>
</tr>
<tr>
<td>Acceptability</td>
<td>0 Not likely to raise any major objections</td>
</tr>
<tr>
<td>Cost</td>
<td>“Medium”</td>
</tr>
<tr>
<td>Associated works</td>
<td>+ The existing Meadow Road mini-roundabout would be removed and Meadow Road would become access/pedestrian/cycle through a public realm improvement scheme</td>
</tr>
<tr>
<td>Operation-Capacity</td>
<td>- Junction is at limit with future worst case flows but operation is improved if the pedestrian stage is demand dependant (reasonable given the low pedestrian flows) and new junction represents a major improvement on the existing mini-roundabout which already operates over capacity and would become an even greater bottleneck in any future scenario. Capacity could be increased in the future by minor widening into the verge (assumed within highway limits) on the west side of Northfield Avenue</td>
</tr>
<tr>
<td>Traffic</td>
<td>- Queuing/delay is considerable in 2021 scenarios however surplus capacity should allow clearance on each cycle and could be reduced by future widening (see comment above on capacity)</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>+ Pedestrian facilities have been included and would operate on a demand dependant basis to ensure minimising unnecessary traffic delay. Safety and efficiency can be optimised by use of pedestrian on and off crossing detectors.</td>
</tr>
<tr>
<td>Cycle</td>
<td>+ Main cycle routes do not traverse this junction but advanced cycle stop lines are incorporated.</td>
</tr>
<tr>
<td>Total (+ve = 1 and -ve = -1)</td>
<td>+3 (“+ve’s” = 6, “-ve’s” = 3)</td>
</tr>
</tbody>
</table>
3.7 Junction 3 – Northampton Road x Northfield Avenue

3.7.1 The junction of Northampton Road and Northfield Avenue is a key junction in Kettering Town Centre and suffers from considerable congestion throughout much of the day. The existing signals are no longer fit for purpose and despite being signalised the junction is hostile to pedestrians and cyclists, causes considerable delay for all users and has impacts at surrounding junctions (specifically Lake Avenue) caused by congestion originating at this junction. Improvements to the existing signals were tested and more radical improvement through conversion to roundabout-based operation was also investigated.

3.7.2 This junction is heavily constrained. There is development which abuts the junction on all four quadrants, the two roads intersect at an undesirably acute angle, there is a narrow and substandard height railway bridge to the direct west of the junction and flows through the junction are relatively high.

3.7.3 In the past, there have been suggestions that a widened rail bridge is the solution. However, such a design would: (i) not alone resolve the capacity issue nor be effective in the short to medium term as the major constraint is the junction itself; (ii) such a scheme to widen the bridge would be both extremely costly in terms of railway disruption etc.; and (iii) there are engineering issues which are difficult to resolve (such as the accommodation of Slade Brook and difficulty in providing standard headroom). In the longer term, major schemes involving rail works may be possible (for example, in conjunction with electrification of the Midland Main Line) and/or necessary once the capability for junction improvement has been exhausted. Therefore the Transport Strategy proposes a junction improvement.

3.7.4 Improvements to the signals are easily shown to be unworkable. The lack of space to increase flares or stop line widths (or even provide pedestrian crossings or cycle facilities), the lack of cycle time to accommodate pedestrian stages, the interaction of queuing and the impediment of the ability of high vehicles to get through the low arch of the bridge all contribute to render any signal option futile. Improvement can be made for pedestrians and cycles with no loss in capacity but the works required to do so would be expensive and are unjustifiable given that they do nothing to improve the operation of the junction.

3.7.5 Alternative control was investigated through the use of a roundabout. A single roundabout can be shown to work (albeit with some “unique” geometry) with land take constrained to the south west quadrant. This still has significant implications as land take is required from both third-party and Network Rail. Furthermore, a roundabout of the dimensions required would be highly hostile to cyclists and would require substantial diversion of pedestrian desire lines.

3.7.6 Building upon the promise shown by a roundabout option and taking advantage of the acute intersection angle, a double roundabout is proposed. This would combine the benefits of roundabout operation with a reduced footprint (now constrained to the single third-party site to the south west), a separation of some non-interacting turning flows and a reduced size which is more conducive to cyclist safety and less deflective of pedestrian desire lines. Off-road cycle facilities are also able to be accommodated within the existing highway ownership boundaries to give cyclists the choice of both on and off-road routes on Northfield Avenue and under the railway bridge.
<table>
<thead>
<tr>
<th>Criterion</th>
<th>Scheme 3.6 (D12226T536)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Conversion of the junction to two conventional compact roundabouts. Signal crossings for pedestrians/cyclists provided on Northfield Av and Northampton Rd</td>
</tr>
<tr>
<td>Land take</td>
<td>+ +</td>
</tr>
<tr>
<td>Implementation</td>
<td>0</td>
</tr>
<tr>
<td>Acceptability</td>
<td>+</td>
</tr>
<tr>
<td>Cost</td>
<td>− − “Very high”</td>
</tr>
<tr>
<td>Operation-Capacity</td>
<td>+</td>
</tr>
<tr>
<td>Traffic</td>
<td>++</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>+</td>
</tr>
<tr>
<td>Cycle</td>
<td>+</td>
</tr>
<tr>
<td>Total (+ve = 1 and -ve = -1)</td>
<td>+6 (“+ve’s” = 8, “-ve ‘s” = 2)</td>
</tr>
</tbody>
</table>
3.8 Junction 4 – Northampton Road x Station Road x Bowling Green Road

3.8.1 Although considered herein as a single entity, this junction is actually a complex involving three junctions: the junction of Station Road and Northampton Road; the junction of Northampton Road, Sheep Street and Headlands; and the junction of Headlands and Bowling Green Road. Within this complex, Bowling Green Road, Headlands and Northampton Road form the through route with a substantial level of traffic as a result.

3.8.2 The interaction of three closely spaced junctions is itself the most significant constraint to the junction. Furthermore, these cannot be reconfigured into a more conventional layout due to the presence of development (much of it historic and/or listed) which surrounds the junctions on all sides. The conversion of Station Road to two-way operation and associated public realm improvements mean that the existing junction configuration cannot remain in its current form. Signal, mini-roundabout and roundabout options were tested.

3.8.3 The complex layout of the junction requires that signals are either designed as a single set (with considerable associated issues regarding staging and phasing) or multiple linked sets. Whichever of these two methods is chosen, the ability of signals to cope with traffic levels is limited (turning movements are substantial, flares cannot be accommodated etc.) and whilst they can be used to enable a significant improvement in pedestrian and cyclist provision, a pure signal solution is unlikely to be satisfactory.

3.8.4 In circumstances of space-constrained complex interacting turning flows, mini-roundabouts often prove to be a viable solution. Mini-roundabouts can be accommodated within the existing junction footprint however ARCADY modelling indicates that mini-roundabouts will suffer capacity limitations (particularly at Station Road) which would impede their efficient operation.

3.8.5 If the sizes of the roundabouts were increased and they were constructed to “normal roundabout” standards then they could operate with substantial capacity. Unfortunately, this would require land take in multiple places including a number of third-party owners, green-space and public land. This, combined with the pedestrian and cycle-hostile nature of such roundabouts makes this a poor solution from every perspective other than that of the vehicle driver.

3.8.6 As there is no one single option which would provide a satisfactory outcome, a more holistic view is required.

- Firstly, the junction with Sheep Street is required for a very low volume of traffic. To reflect this, the access to Sheep Street is proposed to be downgraded to priority access.
- Secondly, the access to Station Road is very important from a pedestrian perspective and if forms an important link between the public realm in Station Road with that on Sheep Street and in the wider Town Centre. Furthermore, the difficult roundabout operation (complicated further by the gradient at this part of the junction) makes signals the most desirable option. To facilitate the pedestrian (and cycle) connection a diagonal crossing which reflects the Station Road to Sheep Street (and vice versa) desire line is provided.
- Third and finally, to ensure safety at the junction with Sheep Street, the exit is restricted to left-turn only on the outward movement (i.e. south onto Headlands only). This precipitates the need for some (albeit a very small amount) of traffic to “U-turn”. Additionally, at the junction of Bowling Green Road, signals are unable to operate satisfactorily. It is therefore proposed that a mini-roundabout (although a relatively large one) be provided here to allow this full range of movements whilst having a greater capacity than signals in this circumstance.
Mini-roundabouts are shown to be statistically safer for cyclists, and pedestrian facilities can be provided on the southern arm with no impact on operation.

3.8.7 The combined result of these considerations is a “hybrid” option which attempts to capture the best points of each of the categories of junction option to establish a synergy and produce the best overall value option. Additional benefits include reduced off-peak delay, no land take outside the highway boundary and tight integration between the Town Centre Public Realm schemes.
## Scheme 4.4 (D12226T544)

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Signals at Station Road/Northampton Road; Sheep Street not signalised but traffic in Sheep Street restricted to left-out. Bowling Green Road/Headlands converted to mini-roundabout.</td>
</tr>
<tr>
<td>Land take</td>
<td>None required outside existing highway boundary.</td>
</tr>
<tr>
<td>Implementation</td>
<td>Improvements can be undertaken with junction open to traffic but one way working likely (and thus queues/delays)</td>
</tr>
<tr>
<td>Acceptability</td>
<td>Incorporates pedestrian crossing facilities and links into Station Road public realm works</td>
</tr>
<tr>
<td>Cost</td>
<td>“High”</td>
</tr>
<tr>
<td>Operation-Capacity</td>
<td>The signals operate well in medium term but are under pressure by 2021; the roundabout is at capacity by 2021</td>
</tr>
<tr>
<td>Traffic</td>
<td>Queuing at the signal junction on Northampton Rd approach. Sheep Street converted to normal in movement but left-out only movement – restriction of in/out movement compensated for by roundabout at Bowling Green Road</td>
</tr>
<tr>
<td>Pedestrian</td>
<td>Crossing facilitates essential part of scheme.</td>
</tr>
<tr>
<td>Cycle</td>
<td>Cyclists will use Station Road and crossing provides link to public realm schemes in Sheep Street. Additionally, use of mini-roundabout is generally safer for cyclists than a standard roundabout.</td>
</tr>
<tr>
<td>Total (+ve = 1 and -ve = -1)</td>
<td><strong>+3</strong> (“+ve's” = 6, “-ve 's” = 3)</td>
</tr>
</tbody>
</table>

Pell Frischmann
3.9 **Level of Preparation**

3.9.1 The proposed junction schemes have been developed to pre-feasibility level using geometric layouts which generally conform to conventional junction/highway standards (primarily Design Manual for Roads and Bridges and the Manual for Streets) and to meet reasonable anticipated growth in traffic. Further development will be required at detailed design stages but it has been demonstrated that junctions can be designed which: (i) are consistent with the general two-way road around the Town Centre; and (ii) can be designed with limited land acquisition. The preferred junction schemes generally accommodate the 2021 traffic estimates although in some cases, capacity is approached and a reasonable balance between cost, capacity, land acquisition and public realm aspirations has had to be sought. Detailed feasibility and design studies for individual junctions is outside the scope of the Transport Strategy and will be necessary to enable the delivery of the junction improvements required to support the Transport Strategy as a whole.

3.10 **Other Road Schemes – Trafalgar Road**

3.10.1 In addition to the “residual junctions”, the Road Strategy proposes a new connection between Northfield Avenue and the proposed Wadcroft retail centre. The connection will comprise the construction of a short section of new road between Trafalgar Road and Northfield Avenue. The extension will be routed through an existing car park, currently leased to the NHS and used as a staff car park but is also a potential development site. The objective of the connection is to provide an efficient traffic link between Wadcroft and the two-way road around the Town Centre. However, in meeting this objective other benefits can be achieved:

- Currently traffic to the existing ground level Wadcroft car park uses the primarily residential Meadow Road and a mini-roundabout on Northfield Avenue. The proposed scheme will change the status of Meadow Road to become an access/cycle/pedestrian route (see Section 6);
- The current mini-roundabout on Northfield Avenue is under traffic pressure and the proposed new junction scheme at the Trafalgar Road extension can be designed to accommodate predicted 2021 traffic flows;
- The conversion of Meadow Road to local access/cycle/pedestrian use has environmental benefits (reversion of some road space to green space) and will form a link/connection to an existing Pelican crossing of Northfield Avenue and an underpass under the rail line and thus connect to west Kettering; and
- The new extension/link to Trafalgar Road will provide access to the future proposed New Residential Quarter and whilst it is noted that some frontage occupiers are residential, the majority of the occupiers are commercial and light industrial in comparison to Meadow Road which is almost exclusively residential.

3.11 **Other Road Schemes – Montagu Street**

3.11.1 The return of Montagu Street to two-way operation provides the opportunity to provide bus and cycle priority measures and thereby lock-in benefits provided by this new travel opportunity.

3.11.2 As bus stops on Newland Street are orientated northbound and the bus stop facility on Eskdail Street is orientated eastbound, the primary routing direction of buses on Montagu Street is likely to be westbound. This is also the current prohibited direction of travel. It is therefore suggested that in the return to two-way flows, Montagu Street is provided with bus priority measures in the westbound direction. Some options to reflect this suggestion are shown on Drawing D12294-T-011 below.
3.11.3 Three example options have been proposed as part of this Transport Strategy and of course their delivery (if at all) would be subject to detailed design, consultation and acceptance by the Highway Authority (NCC).

- Option 1 – This option as an extension of the concept would deliver pure bus priority by means of a contra-flow bus and cycle lane. This would be marked as such and it is therefore unlawful for car drivers to encroach upon it. The limited width of Montagu Street means that no on-street parking can be accommodated in this option. Full bus prioritisation and parking provision are therefore mutually exclusive.

- Option 2 – Represents an option in the spirit of Option 1 but which allows for parking to be provided. This parking would be short-term parking as currently found on Montagu Street but the opportunity would be taken to formalise the individual places so as to make operation, turnover, manoeuvring and enforcement more efficient. All parking is located on the eastbound side of the road ensuring an unobstructed link for buses (and cycles) and runs of parking are broken regularly to allow eastbound vehicles to yield priority to vehicles approaching from the other direction. As the westbound direction is not marked as a full bus lane, it is not unlawful for these eastbound vehicles to encroach upon it as they overtake the parked vehicles. Access is restricted at the eastern end to buses and cycles only therefore only cars originating on Montagu Street itself would be able to travel westbound. The limited flow westbound would not impede eastbound traffic flow unduly but the need to yield priority would slow traffic and improve the amenity of Montagu Street by reducing unnecessary through-trips thus returning the use of Montagu Street to those who use the goods and services on offer on Montagu Street.

- Option 3 – Is an option which provides no priority for buses and cycles but formalises parking places as described in Option 2. Unlike the current situation, parking is spread across both sides. This (as in Option 2) will have the effect of slowing traffic and making Montagu Street a less attractive through route whilst retaining the ability of Montagu Street patrons to park close to business premises.

3.11.4 On balance, Option 2 represents the “best” of these three options in terms of supporting businesses on Montagu Street and discouraging through traffic whilst simultaneously providing priority for buses and more direct routing for cyclists. It is again noted that this would be subject to further refinement at the design stages, for example, footway build-outs could provide better crossing opportunities for pedestrians thus integrating the north and south sides of the street more effectively.

3.11.5 Changes to Montagu Street are likely to achieve most success with the full “buy-in” of the users and stakeholders on Montagu Street. Any scheme proposals should be subject to local stakeholder consultation to gain community ownership and further the integration of the Montagu Street area both with itself and with the wider Town Centre.
3.12 Other Road Schemes – Junction of Lake Avenue and Northampton Road

3.12.1 Current NCC aspirations are to upgrade the junction of Lake Avenue and Northampton Road to signalised control. For the purposes of the Town Centre Road/Junction Strategy, the junction has been considered outside the remit of this strategy. There are two main reasons for this:

- The junction is currently noted as congested. It is however the case that the highly congested junction of Northfield Avenue and Northampton Road causes queues to extend back across the face of Lake Avenue. This almost certainly contributes to (if not causes) the congestion at this junction.
- Traffic flows in and out of the junction are subject to substantial change as a result of the Station Quarter Western Development. The nature of this junction may therefore be required to change substantially as a result. Any such change would almost certainly be tied to the delivery of the development (likely through Section 106/278 contributions) and as such.

3.12.2 Based on the combination of these two reasons, it would not be prudent to undertake design work for this junction at this stage. It is noted that the future junction design (in whatever format) would have to:

- Provide sufficient capacity for the level of through and turning traffic;
- Provide full (and convenient) pedestrian crossing facilities;
- Include on-road cycle facilities (i.e. advanced stop lines); and
- Provide infrastructure to allow cyclists to access the northern footway of Northampton Road from the Lake Avenue Green Link and vice versa.

3.13 Other Road Schemes – Town Centre 20mph Zone

3.13.1 20mph zones have been found to be an effective tool for reducing vehicle speeds in built-up areas. When used appropriately they convey to vehicle drivers that the balance of users in an area is not towards cars and through traffic but is towards non-motorised users and access traffic.

3.13.2 The use of a 20mph zone within the new Town Centre two-way “ring road” may serve to reinforce the notion of the roads within the area as non-through traffic routes. Such a zone would reinforce the use of the two-way system by through traffic, increase pedestrian accessibility across roads in the Town Centre, reduce accident rates and increase the attractiveness of cycling within the Town Centre.

3.13.3 It is noted that it may not be appropriate to include the north west part of the Town Centre within the 20mph zone. This part of the Town Centre will provide access to the new Wadcroft development and given the flow of traffic that this will generate, the attempt (and likely ultimate failure) to enforce a 20mph zone in this area may reduce respect for it and thus undermine its use in the Town Centre as a whole.

3.13.4 The introduction of a 20mph zone in Kettering Town Centre would of course be subject to further consultation both with the public and stakeholders prior to possible implementation. A diagrammatic extent of the proposed 20mph zone is indicated below in Figure 3.2:
3.14 Traffic Management and Accident Countermeasure Programme

3.14.1 Any Transport Strategy must make best use of existing road infrastructure and must take all practical measures to ensure that the road/traffic system operates as safely as possible. KBC, in conjunction with NCC, is committed to the maintenance of the Town Centre road/traffic system, keeping it under review and implementing cost effective traffic management measures (as necessary) to improve and maintain traffic capacity and safety.

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**Summary of Road Network and Junction Measures within Town Centre Transport Strategy**

**Objectives**

The objective of the Town Centre Road Network Strategy is to promote a traffic/road system which allows good access and efficient traffic circulation within, and to/from, the Town Centre but without allowing traffic to dominate.

The road network must alleviate present congestion and furthermore must support the travel demands generated by the proposed intensive redevelopment of the Town Centre.

**Road and junction strategy**

The strategy will be achieved through a programme of road and junction reconfigurations and improvements and, where necessary, by limited road widening. Measures have been sought which make best use of existing rights-of-way but it is inevitable that some land acquisition will be required in limited, key locations. Specifically schemes will be implemented:

- At the junction of Eskdaill Street, Newland Street and Rockingham Road;
• At the junction of Montagu Street and Eskdaill Street;
• At the junction of Silver Street and Montagu Street;
• At the junction of Victoria Street and Queen Street;
• At the junction of Queen Street/Horse Market Junction;
• On road links between junctions on Eskdaill Street, Victoria Street, Montagu Street and Queen Street to achieve the two-way route in the NE quadrant of the Town Centre;
• At the Rothwell Road Roundabout;
• To create a new junction on Northfield Avenue at Trafalgar Road;
• At the junction of Northfield Avenue and Northampton Road;
• At the junctions of Northampton Road, Sheep Street, Station Road and Bowling Green Road; and
• On a (proposed) new link between Wadcroft and Northfield Avenue by extending Trafalgar Road to Northfield Avenue and constructing a new junction.

Proposed junction improvements have sought to recognise existing physical constraints (land, property, railway land etc.). Traffic capacities have been tested against forecasts of traffic flows and while all junctions are not entirely free of traffic congestion at all times, the schemes are considered to offer reasonable levels of service without unacceptable investment levels. Schemes will be further refined at detailed design stages.

**Traffic Management and Accident Countermeasure Programme**

The Transport Strategy must make best use of existing road infrastructure and must make take all practical measures to ensure that the road/traffic system operates as safely as possible. KBC, in conjunction with NCC, is committed to maintaining the Town Centre road/traffic system under review and to implement cost effective traffic management measures to improve and maintain traffic capacity and safety.
4. DETAILED DEVELOPMENT – PARKING

4.1 Objectives

4.1.1 The objectives of the parking strategy are to provide adequate parking for the successful economic operation of the Town Centre and to seek a balance between car access and the promotion of more sustainable travel modes. The strategy covers both on and off-road parking facilities; policies and specific objectives are:

- To provide adequate off-street parking to enable the proposed redevelopment proposals for the Town Centre to be realised and to permit developments to operate effectively;
- To permit the loading/unloading/servicing of businesses to take place in an effective manner;
- To implement an effective on-street parking regulation enforcement program to eliminate obstructive on street parking and thereby ensure that traffic, public realm and bus priority schemes meet their potential; and
- To provide parking for disabled users.

4.2 Off-Street Parking Characteristics

4.2.1 Public parking in the Town Centre is primarily off-street and is distributed across a number of sites with both public (KBC) and private ownership and management. Car parks range in size from as small as 32 spaces to as large as 499 with disabled spaces accounting for between zero and 11.6% of allocation (depending on the car park). The largest car parks are located in three main areas of the Town Centre: to the east of the Railway Station (north and south car parks); around the Council offices; and in the northern part of the Town Centre attached or adjacent to large retail units (e.g. Sainsbury’s, Morrisons and the Newlands Shopping Centre).

4.2.2 In order to fully inform the Town Centre Strategy and to gain a more complete understanding of the parking situation in the Town Centre, an area-wide parking survey was carried out. This covered both on and off-street parking and recorded information on stay length, occupancy of spaces, arrival time etc. The survey was carried out on Wednesday 3rd June 2009 and Saturday 6th June 2009. The area covered is broadly analogous to that shown in Figure 4.1 upon which off-street car parks have been indicated:
4.2.3 The full survey results will be documented in a separate report ("Traffic Flows and Parking Survey – Results of June 2009 Survey") but key outputs for off-street parking areas are summarised in Table 4.1 below:
Table 4.1: Car Park Summary Occupancy Results

<table>
<thead>
<tr>
<th>Map Ref.</th>
<th>Car Park</th>
<th>Capacity</th>
<th>Wed. Peak Occ.</th>
<th>%age Occ.</th>
<th>Saturday Peak Occ.</th>
<th>%age Occ.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lower Street</td>
<td>108</td>
<td>35</td>
<td>32.4%</td>
<td>69</td>
<td>63.9%</td>
</tr>
<tr>
<td>2</td>
<td>Morrisons</td>
<td>499</td>
<td>248</td>
<td>49.7%</td>
<td>469</td>
<td>94.0%</td>
</tr>
<tr>
<td>3</td>
<td>Trafalgar Road</td>
<td>210</td>
<td>140</td>
<td>66.7%</td>
<td>Closed</td>
<td>Closed</td>
</tr>
<tr>
<td>4</td>
<td>B&amp;Q</td>
<td>134</td>
<td>59</td>
<td>44.0%</td>
<td>80</td>
<td>59.7%</td>
</tr>
<tr>
<td>5</td>
<td>Newlands</td>
<td>464</td>
<td>229</td>
<td>49.4%</td>
<td>357</td>
<td>76.9%</td>
</tr>
<tr>
<td>6</td>
<td>School Lane</td>
<td>116</td>
<td>67</td>
<td>57.8%</td>
<td>113</td>
<td>97.4%</td>
</tr>
<tr>
<td>7</td>
<td>Wadcroft</td>
<td>224</td>
<td>227</td>
<td>101.3%</td>
<td>293</td>
<td>130.8%</td>
</tr>
<tr>
<td>8</td>
<td>Commercial Road</td>
<td>39</td>
<td>23</td>
<td>59.0%</td>
<td>34</td>
<td>87.2%</td>
</tr>
<tr>
<td>9</td>
<td>Queen Street</td>
<td>32</td>
<td>15</td>
<td>46.9%</td>
<td>22</td>
<td>68.8%</td>
</tr>
<tr>
<td>12</td>
<td>London Road</td>
<td>247</td>
<td>243</td>
<td>98.4%</td>
<td>120</td>
<td>48.6%</td>
</tr>
<tr>
<td></td>
<td>London Road (KBC)</td>
<td>96</td>
<td>110</td>
<td>114.6%</td>
<td>40</td>
<td>41.7%</td>
</tr>
<tr>
<td>13</td>
<td>Station</td>
<td>280</td>
<td>268</td>
<td>95.7%</td>
<td>73</td>
<td>26.1%</td>
</tr>
<tr>
<td>14</td>
<td>Station</td>
<td>223</td>
<td>104</td>
<td>46.6%</td>
<td>9</td>
<td>4.0%</td>
</tr>
<tr>
<td>15/16/17</td>
<td>St Mary's Road</td>
<td>237</td>
<td>204</td>
<td>86.1%</td>
<td>68</td>
<td>28.7%</td>
</tr>
<tr>
<td>18</td>
<td>Sainsbury's</td>
<td>423</td>
<td>251</td>
<td>59.3%</td>
<td>457</td>
<td>108.0%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,332</td>
<td>2,223</td>
<td>66.7%</td>
</tr>
</tbody>
</table>

Note: parking related to the Wadcroft retail area shown thus: 

4.2.4 The following points are noted from the data presented in Table 4.1:

- Overall, throughout the Town Centre, Saturday (weekend) occupancy is more or less the same as on Wednesday (a neutral weekday); however this masks significant variations between car parks;
- Parking stress (generally defined as an occupancy over 85% - the conventional design occupancy level), on weekdays, is focused on the Rail Station, KBC offices (and the adjoining car park), the NHS site at St Mary's Road and at the Wadcroft car park. At the weekend, stress is apparent at Morrisons, Sainsbury's, School Lane, Commercial Road and Wadcroft. With the exception of Wadcroft, this shift is correlated with a shift in parking demand from commuters to the main employment sites to (predominantly) shopping trips. It is noted that Morrisons and Sainsbury's car parks serve dual purposes by providing parking for themselves and by offering a low-rate parking charge structure which provides de facto parking for the wider Town Centre;
- Wadcroft offers one the most convenient parking locations for shoppers in the town. It is therefore most likely the case that this car park would be the first choice of a significant proportion of shoppers and thus even on a weekday when the number of shoppers is comparatively low, it experiences a high level of usage;
- Trafalgar Road car park is closed at the weekend. This car park is not publicly available and, during the week, is used by NHS staff that park here and work at the General Hospital on Rothwell Road. It is proposed in the AAP that as part of the New Residential Quarter development, this site will be redeveloped (also a
small area is required for the new Trafalgar Road access). NHS users will seek other parking locations and the consequent effects will need to be investigated further;

- As expected, parking at the Station is used primarily on weekdays (for which it is assumed the Wednesday surveyed is representative) with occupancy low at the weekend. Even despite the higher level of occupancy on a weekday there is still considerable capacity in the Station car park to the south. As these car parks are almost exclusively used by long-term users, there is not the same need to aspire to an 85% occupancy for operational efficiency (thus a 96% occupancy is not inherently inefficient in this situation);

- The two car parks at Location 12 (London Road) in Figure 4.1 are contained within the Cultural Quarter and are currently under consideration as sites for future development to deliver the AAP objectives. The high level of use of these car parks on weekdays is likely mainly to be due to the demand from the Council offices however, even at weekends, the car parks are approximately half full. This indicates that there is a need for parking in this area throughout the week and any future development in the Cultural Quarter should recognise this. It is also noted that parking provision in this part of the town is likely to become more important in the future as the majority of the (currently) planned development around Kettering is to the south east of the town and these users would approach the Town Centre from this direction thus, in addition to having a convenient place to park in this area of the town, would not need to route around the Town Centre peripheral road network; and

- Kettering, in common with most non-metropolitan areas of the UK, has a very high private car mode share. Behaviourally, car users generally seek to park as close to their destination as is possible. This is especially the case for shoppers (compared to commuters) and is demonstrated on Saturday by the over-capacity use of car parks such as Wadcroft whilst the London Road car park(s) less than 400m (5 min) walk from the main area of the Town Centre are comparatively underutilised.

### 4.3 General Approach to Off-Street Parking

#### 4.3.1 Generally

Generally, parking supply in the Town Centre is utilised to about two-thirds of capacity on both weekdays and Saturdays. As demonstrated in the foregoing, some car parks are oversubscribed while some are underused. In developing a Parking Strategy, it is reasonable to seek to make maximum and efficient use of existing car parks as they are both expensive to provide and operate and also absorb valuable land area. There are generally two methods for attempting to counterbalance this behaviour and achieve more efficient use of the existing facilities. These are ‘demand-side’ and ‘supply-side’ policies and an appropriate balance should form a part of the overall Transport Strategy.

#### 4.3.2 Demand-Side Policies

Demand-side parking policies seek to manage demand to: (i) make best use of existing facilities; and (ii) manage the level of parking demand. The types of measures which could be considered as part of a Transport Strategy are as follows:

- **Car park fixed direction signing** – to make best use of existing car parks, a more complete signage strategy could be used to increase driver awareness of alternative facilities. An example of this (from Southampton) is shown below in Figure 4.2. This is only likely to be effective for drivers who are not entirely familiar with the area. Those who are most familiar with the Town are likely find such information redundant and given the medium-sized nature of Kettering, it is a reasonable assumption that most drivers would be local. That being said, such
signage can be of great benefit to delivery and servicing drivers who are more likely not to be local and as such a coherent goods and servicing directional signing strategy can have distinct benefits. The implementation of a simple, consistent and coherent directional signage system would also be comparatively cheap and could be accommodated within the ongoing road works in the Town Centre.

Figure 4.2: Example of Parking Directional Signage

4.3.3 Car park variable direction/usage signing – a more expensive, but also significantly more effective system, could be the introduction of a variable message sign (VMS) system in the Town Centre as part of an ITS (Intelligent Traffic System). At a minimum, this would include directional signage to parking facilities (example shown below) but could also include information as to the occupancy level of those car parks. Some systems simply indicate if the car park is “full” or has “spaces”. More sophisticated systems can show the actual number of spaces available and/or can be integrated with the Urban Traffic Management and Control (UTMC) systems which combine with signal control in order to achieve most efficient operation of the network and manage congestion at critical locations. An example of this sort of system (in operation in Southampton) is shown below in Figure 4.3.
Parking demand management through pricing – the pricing mechanism is the most common method of managing demand. Price structures can be developed: to suppress overall demand (or increase it if below-market rates are applied), to reallocate demand between popular (usually centrally located) and less popular car parks with spare capacity or to control length of parking stay and/or arrival times of users to parking areas. Such policies are common in any town centre to balance demand with supply/capacity but the price mechanism is invariably opposed by retailers and businesses and is always unpopular with users. Nevertheless, parking pricing policy is likely to be a component of a Transport Strategy and is discussed further in subsequent sections.

4.3.4 Supply-Side – a supply-side policy would accept that users wish to park as close as possible to their destination, and thus seeks to provide parking facilities to meet unconstrained demand. Pure supply-side provision is however inherently unachievable without significant compromises on land use, cost or traffic congestion. It is therefore not proposed herein however provision of additional parking supply will be required to support new development and the trips that such development would generate.

4.3.5 Most Transport Strategies combine elements of demand-side and supply-side and the facilities proposed for the Town Centre are described in the following sections.

4.4 Town Centre Off-Street Parking Strategy

4.4.1 Wadcroft Development – The provision of parking for the Town Centre will be greatly influenced by the proposed Wadcroft retail centre development. Discussions with potential key retail operators has indicated that to make the centre viable, some 500+ parking spaces are required nearby – although these are not necessarily dedicated to any one retail outlet.

4.4.2 Availability of Existing Parking for Wadcroft Retail Centre – As part of the development, the existing Wadcroft car park will be closed and some users will be displaced (there will of course be a change in user patterns – some users use the existing Wadcroft ground-level car park as a long-stay car park which does not appear to be directly retail-user linked). As the existing Wadcroft (ground-level) car park is currently one of the most used, it is important to quantify the effect of its removal and to establish: (i)
what level of new parking is required; (ii) how it affects other parking areas nearby; and (iii) what is the balance between existing and new parking spaces.

4.4.3 It has been assumed, based on the evidence of the parking survey, that 400m walking distance is perceived to be generally too far (for Kettering car users) between car park and retail centre and that a smaller radius around the new Wadcroft retail site would be appropriate to form the basis of parking provision. A 300m radius has therefore been taken around the proposed development area and thus includes Wadcroft, Morrisons, Sainsbury’s and Newlands car parks.

4.4.4 In order to determine the “spare” capacity of the existing parking in the area (which might accommodate some of the new parking demand from a Wadcroft redevelopment) the following assumptions have been made:

- The surveyed Saturday reflects an average Saturday and, as shown in Table 4.2, occupancy is high. A design aim of 85% occupancy will have enough latent capacity to cover increases in use due to non-standard weekend events, Christmas, bank holidays etc. A car park operating at below 85% occupancy on an average Saturday is therefore assumed to have spare capacity and conversely above 85% would indicate parking stress;
- General Town Centre Car park users are 100% flexible between the 4 car parks and will redistribute around the car parks as necessary (i.e. there will be no reduction of trips due to the proposed changes)\(^2\);
- Usage of disabled spaces is proportional to overall occupancy of the car park in question and disabled spaces have been provided proportionally with regard to their demand for use;
- There is no latent or suppressed demand for parking; i.e. provision of additional parking will not cause any more trips to occur than were occurring previously, with the exception of trips generated by the new development units.

<table>
<thead>
<tr>
<th>Car Park</th>
<th>Capacity</th>
<th>Saturday Peak Occupancy</th>
<th>Peak %age Occupancy</th>
<th>Maximum number spaces available</th>
<th>Spaces available above 85% occupancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wadcroft</td>
<td>224</td>
<td>293</td>
<td>130.8%(^3)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Morrisons</td>
<td>499</td>
<td>469</td>
<td>94.0%</td>
<td>30</td>
<td>0</td>
</tr>
<tr>
<td>Sainsbury’s</td>
<td>423</td>
<td>457</td>
<td>108.0%</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Newlands</td>
<td>464</td>
<td>357</td>
<td>76.9%</td>
<td>107</td>
<td>37</td>
</tr>
<tr>
<td></td>
<td>1610</td>
<td>1576</td>
<td>97.9%</td>
<td>137</td>
<td>37</td>
</tr>
</tbody>
</table>

4.4.5 It is clear from the above (Table 4.2) that there is generally no significant spare capacity in the existing parking regime, with peak Saturday occupancy operating at almost 98%. Offsetting the available capacity with the use above the 85% capacity yields a total availability of 37 spaces. It is however noted that this takes no account of the considerable over-capacity operation of the Wadcroft and Sainsbury’s car parks and that a proportion of these users may redistribute given better information on space

\(^2\) It is assumed that the current excessive imbalance of use results primarily from poor information provision (and thus “poor selection” of parking venue) by the “flexible drivers” rather than an intrinsic over-subscription to a particular car park, e.g. if there were excessive customer demand at Sainsbury’s, this would be relatively inflexible.

\(^3\) The apparent overcapacity use appears to arise from drivers parking in non permitted locations, waiting in aisles, circulating etc.
availability before committing to a car park (i.e. that provided by the proposed VMS system).

4.4.6 Thus, in the provision of parking for the proposed Wadcroft retail centre and for the displaced parking from existing Wadcroft car park, there is little opportunity to “share” if the 85% criterion is considered and approx 100 available to share if total available capacity is considered.

4.4.7 However, the ground level Wadcroft car park will not remain – it is required for the redevelopment area – and thus, not only will full development parking need to be accommodated but, displaced ground level parking from Wadcroft must also be accommodated.

4.4.8 Parking Standards – Current⁴ non-residential parking standards for new developments are defined in the East Midlands Regional Spatial Strategy (Adopted 2009⁵) which has set the level of parking provision equal to that defined in National Planning Policy Guidance Document 13: Transport (PPG13). For example, the A1 retail standard of provision is equivalent to a maximum provision of 1 space per 20m² of development.

4.4.9 Disabled Parking Provision – Provision of disabled spaces is currently variable by car park. Current provision levels are detailed below in Table 4.3:

<table>
<thead>
<tr>
<th>Map Ref.</th>
<th>Car Park</th>
<th>Capacity</th>
<th>Disabled Spaces</th>
<th>%age Disabled</th>
<th>TAL05/95° Recomm. Provision</th>
<th>Diff. from TAL05/95</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lower Street</td>
<td>108</td>
<td>10</td>
<td>9.3</td>
<td>7</td>
<td>+3</td>
</tr>
<tr>
<td>2</td>
<td>Morrisons</td>
<td>499</td>
<td>18</td>
<td>3.6</td>
<td>24</td>
<td>-6</td>
</tr>
<tr>
<td>3</td>
<td>Trafalgar Road</td>
<td>210</td>
<td>5</td>
<td>2.4</td>
<td>13</td>
<td>-8</td>
</tr>
<tr>
<td>4</td>
<td>B&amp;Q</td>
<td>134</td>
<td>15</td>
<td>11.2</td>
<td>9</td>
<td>+6</td>
</tr>
<tr>
<td>5</td>
<td>Newlands</td>
<td>464</td>
<td>18</td>
<td>3.9</td>
<td>23</td>
<td>-5</td>
</tr>
<tr>
<td>6</td>
<td>School Lane</td>
<td>116</td>
<td>0</td>
<td>0.0</td>
<td>7</td>
<td>-7</td>
</tr>
<tr>
<td>7</td>
<td>Wadcroft</td>
<td>224</td>
<td>26</td>
<td>11.6</td>
<td>13</td>
<td>+13</td>
</tr>
<tr>
<td>8</td>
<td>Commercial Road</td>
<td>39</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
<td>-3</td>
</tr>
<tr>
<td>9</td>
<td>Queen Street</td>
<td>32</td>
<td>0</td>
<td>0.0</td>
<td>3</td>
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<td>247</td>
<td>7</td>
<td>2.8</td>
<td>14</td>
<td>-7</td>
</tr>
<tr>
<td>13</td>
<td>Station</td>
<td>280</td>
<td>2</td>
<td>0.7</td>
<td>16</td>
<td>-14</td>
</tr>
<tr>
<td>14</td>
<td>Station</td>
<td>223</td>
<td>0</td>
<td>0.0</td>
<td>13</td>
<td>-13</td>
</tr>
<tr>
<td>15/16/17</td>
<td>St Mary’s Road</td>
<td>237</td>
<td>10</td>
<td>4.2</td>
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<td>14</td>
<td>3.3</td>
<td>21</td>
<td>-7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3332</td>
<td>129</td>
<td>3.9</td>
<td>186</td>
<td>-57</td>
</tr>
</tbody>
</table>

4.4.10 Table 4.3 shows that, with the exception of the Lower Street, B&Q and the Wadcroft car parks, (dedicated) disabled car parking is currently underprovided based upon the recommended levels of provision specified in TAL05/95. Additionally, some car parks such as those at the Station have very poor levels of provision and, in order to ensure that the railways are fully accessible to all users, this should be rectified as a matter of

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⁴ As at April 2010 (Rev H)
⁵ For the purposes of context, it is noted that until the publication of the EM-RSS, the applicable standard was deposited in the form of Supplementary Planning Guidance which was produced in conjunction with NCC and the Northamptonshire District Councils. This specified a maximum standard provision of 1 space per 25m². This standard was adopted in 2003 and represented a more stringent standard than the current Planning Policy Guidance. However, with the adoption of the RSS, the SPG is no longer saved and the higher maximum standard is now applicable.
⁶ Traffic Advisory Leaflet 05/95: Parking for Disabled People
urgency. It is also important to note that, whilst many of these car parks operate policies which allow disabled users free parking regardless of which space they are parked in, disabled users require facilities such as space for access around the vehicle in order to negotiate wheelchair movement; such a policy does not provide for this requirement.

4.4.11 The variable provision of disabled spaces across car parks would seem to indicate that provision has been considered in a piecemeal fashion and, whilst it is right that disabled parking provision be higher at more central car parks (as opposed to the more remote sites), provision levels should be coherent across all sites so as not to discriminate against disabled users by provision based on preconceived destination assumptions. On that note, specific attention is drawn to the very low level of disabled provision at the railway station. Improving accessibility to public transport (in all its forms) should be a central goal of all operators and it is important (not only from a legal Disability Discrimination Act standpoint) that disabled users are not barred by default of existing historic infrastructure where at all possible. Kettering railway station is fully step-free/lift accessible and the majority of East Midlands Train’s rolling stock which serves Kettering station is disabled-user accessible. It is therefore recommended that disabled parking provision be increased at the station in the immediate future to ensure that the lack of disabled parking access does not become the barrier to the use of the railways by disabled users from Kettering.

4.4.12 Parking Charges – Parking charges for the car parks likely to be affected by Wadcroft development are shown in Table 4.4. Parking charges for Wadcroft ground-level car park are the same as other KBC car park charges under KBC ownership. The Morrisons, Sainsbury’s and Newlands car parking charges are set by their respective owners. It is apparent that the non-council car parks operate a significantly lower charge. It would therefore be expected that these car parks would be the most used and those attracting the higher charges (i.e. Wadcroft) would be used less. However, the Newlands car park operates with at least some spare capacity (even at weekends – see Table 4.1) whilst the Wadcroft car park operates considerably over capacity (on both weekdays and at the weekend). This indicates that many users are highly location sensitive but may have a lower than expected price elasticity.

<table>
<thead>
<tr>
<th>Time</th>
<th>Wadcroft</th>
<th>Morrisons†</th>
<th>Sainsbury’s</th>
<th>Newlands†</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;15min</td>
<td>£0.90</td>
<td>£1.00**</td>
<td>Free</td>
<td>£1.00</td>
</tr>
<tr>
<td>&lt;1hr</td>
<td>£1.80</td>
<td>£1.00**</td>
<td></td>
<td>£1.50</td>
</tr>
<tr>
<td>&lt;2.5hr</td>
<td>£2.40</td>
<td></td>
<td></td>
<td>£3.50</td>
</tr>
<tr>
<td>&gt;4hr</td>
<td>£4.80</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

† Disabled badge holders park free
‡ Disabled badge holders park free subject to maximum stay restriction
* Charges are equal across all other council-owned car parks (not shown)
** Refundable upon in-store purchase

4.4.13 If a VMS parking direction policy is adopted, it would be incompatible to have significantly different parking charge structures for the most central car parks; as, for example, if the VMS system directed drivers to a more expensive car park then the system could be perceived by users as merely a tool for revenue generation, undermining its effectiveness. For this reason, the Transport Strategy should seek to unify the charges of the existing (and the proposed new Wadcroft retail) car parks.
4.4.14 Wadcroft Retail Redevelopment – Car Parking – it was established in the Wadcroft Development Appraisal (Ref: R12226T033) that a department store operator would require provision of adjoining (or adjacent) parking of at least 500 spaces. The final parking provision will depend on the extent of retail floorspace which is required, and which is economically viable, to support the department store. These aspects are still being considered under a separate planning exercise but, in principle, extensive parking in line with PPG13/local planning policy will be sought. The provision must also recognise that the current ground-level Wadcroft car park is extensively used and the ultimate provision must continue to recognise this use. This is reinforced by the likely position of the Morrisons and Sainsbury’s respective managements in so far as neither supermarket is likely to participate in a car park sharing scheme (even if spaces were available). Discussions have yet to take place with Wadcroft potential developers for the new retail centre and parking provisions will be reviewed further as the development and financial case for the retail centre is progressed but the final allocation will recognise the following points:

- Development of the Station Quarter area will include an “interceptor car park”, west of the rail line. The car park has a number of functions, namely: (i) to “intercept” car trips from the west which desire to park at the Station and thus prevent those cars travelling through the problematic Northampton Road/Northfield Avenue junction further contributing to its congestion; (ii) provide parking for the proposed future development in the Station Quarter; and (iii) providing parking for long-stay rail users. The new bridge over the railway and the public realm improvements to Station Road will contribute to the attractiveness of the proposition and a pricing structure can be developed to encourage the use of the car park in preference to those nearer the user’s destination. Nevertheless, the impact on Town Centre car parking is likely to be small but the Strategy should seek to publicise the availability of, and offer attractive (or free) tariffs for, the “interceptor car park” for longer stay users. It is noted that such a car park will be provided only as a result of serious consideration of the environmental issues at and around the site and only with mitigation which not only compensates for the impacts, but improves upon the existing situation. Any new car park will also comply with ParkMark Secure Parking Standards to ensure that users do not have concerns about leaving vehicles in this car park for long periods.

- The exact style and arrangement7 (e.g. multi-storey/underground, multiple access/ single access, multiple structure/single structure, integrated/standalone etc.) will be subject to necessary feasibility and detailed design as part of the ongoing Wadcroft development process.

- It is uneconomic to build expensive parking structures to cater for exceptional peak use (for example at Christmas). Opportunities should be explored to seek alternative schemes to manage Town Centre demand such as negotiating with Network Rail for use of Station South Car Park for park-and-ride (the car park is, in essence, empty on Saturdays) during such periods or negotiating temporary use of sites on the periphery of the town; and

- In addition to the closure of the Wadcroft and Commercial Road car parks, it was also planned to close School Lane (116 spaces) car park. The Wadcroft car park cannot reasonably accept any displaced parking from School Lane or new parking generated by its redevelopment. The Strategy proposes that School

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7 For the purposes of illustration, parking at the Wadcroft Site has previously (e.g. in consultation) been shown as two units. For clarity, this has been revised to a single instance of the “car park icon” but it is noted that this is without prejudice to the final arrangement of the scheme and is merely an indicator of the general location of parking.
Lane Car Park should be retained or, if required for development, (a minimum of replacement) car parking should be included as part of that specific site development.

4.5 On-Street Parking

4.5.1 It is likely that there will be some reductions in kerbside parking provisions where traffic schemes require minor widening etc. to realise junction improvements, bus priority measures etc. Additionally, the public realm schemes, such as Phase 2/3 for Sheep Street and Market Street and the proposed upgrades on Station Road will require reallocation of some road space to pedestrians, cycles etc. The on-street parking allocations and regulations will be reviewed on a scheme by scheme basis at each detailed design stage. The detailed design of schemes will assess the frontage loading and access requirements and will provide adequate facilities although possibly relocated; for example, some frontage access in Market Street may be relocated to new parking areas in Horsemarket. Additionally, account must be taken of the requirements for disabled users. It would be unrealistic at this strategy stage, to identify all on-street parking gains and losses but an order of magnitude is given in subsequent sections. It is anticipated that by the time the AAP goes to Public Examination, detailed estimates will have been made of on-street parking changes in areas where roads or public realm schemes are to be implemented.

4.5.2 On-street disabled parking must be provided throughout the Town Centre. This will require disabled vehicle access through intended public realm areas (examples already exist close to the Kettering Library). The provision (location, number of spaces etc) will be determined on a scheme by scheme basis at detailed design stages.

4.5.3 Surveys – To assist these design decisions, on-street parking surveys were undertaken for Kettering Town Centre on Wednesday 3rd June 2009 and Saturday 6th June 2009. Data were collected to enable identification of kerbside parking (type of vehicle, duration, occupancy of spaces) on all Town Centre roads. The data also allowed identification of the current level of disregard for the parking restrictions on the roads surveyed.

4.5.4 These data have been used to assess/inform improvement schemes (junction improvements, street widening etc.) and in the planning of such measures as the Public Realm.

4.5.5 Contraventions – A detailed analysis of the data will be presented in a separate survey report but initial analysis has been of the number of contraventions of parking regulations for Wednesday 3rd June. A contravention was recorded as once per vehicle per road and per continuous stay, e.g. a stay from 9am to 5pm within a 2hr limit bay was noted as 1 contravention; a stay from 9am to 12pm and then 2pm to 5pm in the same bay would count as two contraventions.

4.5.6 For the surveyed roads, a total contravention count of 1127 was recorded. This represents a high level of contravention of regulations and it is clear that there are a significant number of violators with little regard for the regulations; e.g. there are records of all-day stays in 30min limited bays.

4.5.7 Loss of Parking due to traffic and public realm changes – within the area surveyed, there are approximately 1153 parking spaces (as on-street parking is often by “kerb length” rather than by “individual bays”, some estimation is necessary). The traffic schemes and public realm schemes (e.g. Market Street, Sheep Street and Station Road) are likely to result in some loss of on-street parking spaces in Montagu Street, Victoria Street, Market Street, Station Road (although in this case, most frontage buildings have off-street parking) and Trafalgar Road. Furthermore, there is likely to be
some gain in Horsemarket and on Meadow Road. At this stage, the net loss is assessed to be of the order of 70 spaces although this has to be confirmed as designs progress. Furthermore, if on-street parking regulations (e.g. length of stay) are enforced, then the impact of this loss should be more than compensated for (see subsequent sections).

4.5.8 Strategy – The on-street parking restrictions across a wide area of the Town Centre have been designed to respond to the need: (i) to provide short stay parking; and (ii) to restrict parking to promote safety such as ensure visibility, remove obstruction in congested locations etc. These objectives cannot be achieved without enforcement of regulations. Without enforcement, parking restrictions have limited effect as regular users learn that they will not be penalised for disregarding the restrictions.

4.5.9 It is also noted that without effective enforcement of on-street parking regulations, the benefits of the proposed road, bus priority (e.g. Montagu Street), disabled access and public realm vehicle and access limitations (e.g. Sheep Street and Market Street) will not be realised and the Transport Strategy will be undermined. The Transport Strategy should include an integrated parking regulation enforcement programme.

4.5.10 Parking enforcement is usually at least revenue neutral and more often revenue generating. There is therefore no economic reason to not adopt an on-street parking enforcement policy. It is noted that KBC has recently, after the first draft of this report, already taken action and that traffic wardens have been engaged to assist the enforcement of regulations.

4.5.11 Given a reasonable level of enforcement, it is evident that the spaces lost due to road scheme improvements can be effectively replaced if the short-stay regulations are applied. There is currently clear evidence of average parking stays exceeding the normal time limits. For example, while the permitted parking time in Sheep Street is 30 minutes, average stays are 90 minutes and some vehicles park for longer periods. If the 30 minute stay was enforced the turnover would more than compensate for the small loss of parking spaces.

4.5.12 At this stage, on street parking is free. To ensure parking is self-financing and to promote rapid turnover of short term spaces, on-street parking charges can be considered although it is stressed that KBC has no policy commitment in this regard and it would be important to assess the impact of enforcement prior to (and thus independently of) any such consideration.

Summary of Parking Measures Within Town Centre Transport Strategy

Objectives

The objectives of the Strategy are:

- To provide adequate off-street parking to enable the proposed redevelopment proposals for the Town Centre to be realised and to permit developments to operate effectively;
- To permit the loading/unloading/servicing of businesses to take place in an effective manner;
- To implement an effective on-street parking regulation enforcement program to eliminate obstructive on-street parking and thereby ensure that traffic, public realm and bus priority schemes meet their potential; and
- To provide parking for disabled users.
Off-street Parking Strategy

The Strategy will:

- Provide a VMS system: (i) to manage car park demand by providing information to users on available car park spaces; and (ii) to link the system to a congestion management plan (essentially a traffic signal plan) to avoid congestion at key points;
- Provide adequate car parking to meet retail developer requirements for the major new Wadcroft retail area while: (i) maintaining provisions below PPG13 maximum guidelines; and (ii) making best use of available parking space in the Town Centre. At this stage, the new provision is assessed as 600 spaces but this is subject to an ongoing feasibility design process and is subject to negotiations with a preferred developer;
- As part of “best use” strategy and to integrate with the VMS, seek to unify parking charges for central Town Centre off-street parking areas (e.g. Newlands, Morrisons, Sainsbury’s and the new Wadcroft);
- Retain School Lane Car Park in the short term; in the longer term, as the site is redeveloped incorporate parking provisions within the development;
- Seek to manage parking by, for example:
  - Publicising the convenience of, and offer attractive tariffs for, “interceptor car park” west of railway for long stay users;
  - Innovative measures to manage peak events; for example, in event of Saturday or peak period (e.g. Christmas) car park congestion and in the short-term (before all Wadcroft and Station Quarter schemes come on stream) consider innovative measures to manage Town Centre parking demand such as negotiating with Network Rail for use of Station South Car Park for park-and-ride (the car park is basically empty on Saturdays).

On-Street Parking Strategy

The key points of the Strategy will be:

- Review the location of spaces to ensure that traffic improvement and public realm schemes can function as planned, the on-street parking Strategy will require some limited reductions in the number of parking spaces; estimates of the reductions will be made by the time of the AAP Public Examination;
- Disabled on-street parking – provide adequate on-street disabled parking spaces close to key destinations; allow disabled vehicles in public realm (bus/pedestrian/cycle) schemes;
- Frontage servicing and access – provide adequate loading/unloading/servicing facilities for premises affected by traffic and public realm schemes; details should be developed on a scheme by scheme basis at final design stage; and
- Enforcement of on-street regulations – it is essential that on-street parking regulations are enforced so that traffic, public realm and bus priority schemes can function as planned; KBC will introduce an effective enforcement programme.
5. DETAILED DEVELOPMENT – PUBLIC TRANSPORT – BUS STRATEGY

5.1 Objectives

5.1.1 The objectives of the public transport strategy are to promote bus services by improving the operational environment for buses and to improve accessibility and penetration of bus services to the Town Centre. This will assist in promoting mode shift away from private cars to buses.

5.2 System Development

5.2.1 Buses in Kettering are operated by Stagecoach under a contract with Northamptonshire County Council which owns the vehicles. Bus routes are largely determined in response to market demand (passenger volumes). The operator would prefer routes to penetrate the Town Centre to the maximum degree possible (delivering maximum commercial viability) and would prefer routes to pass as close as practical to new developments. However, bus routes must be balanced against other, sometimes competing, objectives such as public realm improvements, segregated pedestrian/cycle routes, disabled users, servicing requirements etc.

5.2.2 The Town Centre strategy requires buses to serve the proposed transport interchange at the Station. KBC believes that bus services to/from the Station will assist to promote mode choice away from private cars by rail commuters (this could have great importance for rail commuters to/from the proposed Kettering East development) and would contribute to the success of the Station/Town Centre link.

5.2.3 The approach to buses within the Town Centre Transport Strategy is therefore to provide the physical arrangements which enable buses to operate a service which is efficient, attractive to existing and potential users and which therefore promotes increased bus use and assists choice towards buses as sustainable modes. The infrastructure and management actions to assist efficient bus operations are:

- The reconfiguration of the main road network in the NE quadrant of the Town Centre to enable buses to take more direct routes to/from the main bus stop area (Newlands and Eskdail Street) and reduce bus journey distances;
- The junction improvement programme which will reduce bus delay. A programme will be investigated to determine the benefits of using bus detection and priority at traffic signals (where relevant);
- Possible westbound bus priority on Montagu Street and junction improvements with Newland Street to permit buses a more direct route from the west and reduce journey distance (and times);
- Silver Street will be “downgraded” as a general traffic route and this will enable buses to route closer to the Town Centre areas of activity;
- The improvement of Station Road and the construction of a bus/rail/other mode interchange at the Station will improve bus linkages;
- A programme of traffic management regulation enforcement is recommended (see Section 4); this will remove obstructive parking from kerbsides at critical locations and assist bus operations.

5.2.4 The Strategy does not aim to define specific bus routes but aims to provide facilities which enable bus routes to serve the Town Centre. As described in Section 2, the Public Realm Works Phases 2 & 3 will implement a purpose-built and high-quality bus facility at Horsemarket. This was derived from an extensive “optioneering” process with the following being the main options:
• Option 1 – relocate buses in Market Street and provide a “loop” for southbound buses using Bowling Green Road/Northampton Road/the link along Stagecoach’s garage/George Street and the lower end of Sheep Street southbound;
• Option 2 – permit southbound buses in Market Street and Sheep Street by permitting bus only right turn from Horse Market;
• Option 3 – relocate buses in Market Street and permit buses to enter Sheep Street from the east, U turn near George Street and exit Sheep Street to the east; and
• Option 4 – relocate buses and bus stops in Market Street and Sheep Street and provide routes and stops in a high-quality purpose built facility at Horse Market and combine with the extensive Phase 2/3 public realm improvements. As discussed above, following public and stakeholder consultation, this was the selected option. The proposed layout (as issued for tender to construction contractors) is shown below in Figure 5.1:
5.2.5 In the longer term, possibilities are being considered to provide the opportunity for a new southbound route via Tanners Lane, Trafalgar Road (with stops adjacent to the new Wadcroft retail centre) and the lower end of the High Street (shared use) and Sheep Street). The advantages and disadvantages of those proposals will be subject to public and further stakeholder consultation as appropriate.

5.2.6 Other measures, such as further extending the provision of Real Time Passenger Information at bus stops are under discussion.

<table>
<thead>
<tr>
<th>Summary of Bus Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objectives</strong></td>
</tr>
<tr>
<td>The objective of the bus strategy is to promote bus services by improving the operational environment for buses, improving accessibility and penetration of bus services to the Town Centre and therefore assisting in promoting mode shift away from private cars to buses.</td>
</tr>
<tr>
<td><strong>System Development</strong></td>
</tr>
<tr>
<td>Bus routes are the responsibility of the operator and thus the aim of the bus strategy is to provide an operating environment which enables buses to offer efficient and convenient services. This will be achieved through on-street physical measures including:</td>
</tr>
<tr>
<td>- The reconfiguration of the main road network in the NE quadrant of the Town Centre to enable buses to take more direct routes to/from the main bus stop areas (e.g. Newlands and Eskdale Street) and reduce bus journey distances/times;</td>
</tr>
<tr>
<td>- Possible westbound bus priority on Montagu Street and junction improvements with Newlands to permit buses a more direct route from the west and reduce journey distance/times;</td>
</tr>
<tr>
<td>- Silver Street will be “downgraded” as a general traffic route and thus enable buses to route closer to the Town Centre areas of activity;</td>
</tr>
<tr>
<td>- The improvement of Station Road and the construction of a bus/rail/other mode interchange at the Station will improve bus linkages;</td>
</tr>
<tr>
<td>- A programme of traffic management regulation enforcement will remove obstructive parking from kerbsides at critical locations and assist bus operations; and</td>
</tr>
<tr>
<td>- The provision of high-quality purpose-built bus stopping facilities at Horsemarket which will give users a choice of destinations and provide new opportunities for bus operators.</td>
</tr>
<tr>
<td>Opportunities for bus routing to serve the new development of Wadcroft retail centre are subject to public consultation. Other measures, such as further extending the provision of Real Time Passenger Information at bus stops, are under discussion.</td>
</tr>
</tbody>
</table>
6. DETAILED DEVELOPMENT – PUBLIC TRANSPORT – STATION AREA TRANSPORT INTERCHANGE/HUB

6.1 Objectives

6.1.1 The vision for the Station Quarter as defined in the Preferred Options AAP of August 2008 comprises major development of the area on either side of the railway line. As noted in Section 1, a Station Study is in progress to develop the AAP measures further. At this stage, the likely transport measures are abstracted as follows.

6.1.2 It is noted that the Study is not complete and various discussions and considerations are in progress over land ownership, funding etc. Thus, while the principles of the AAP are established, measures may vary from those described in the following sections.

6.2 The “Station Quarter”

6.2.1 The Station Quarter Study comprises the area bounded by Northampton Road (north), Queensberry Road (east), Lake Avenue (west) and the Network Rail south car park. The extent is shown in Figure 6.1 below:

![Figure 6.1: Indicative Extent of the Station Quarter](image-url)
6.2.2 The Midland Main Line and Kettering Station bisect the Station Quarter. Land on the east side of the rail line is mainly devoted to surface car parks (north car park with 287 spaces and south car park with 223 spaces); these car parks are owned by Network Rail and operated by East Midlands Trains. The area to the west of the railway comprises sports fields.

6.2.3 The AAP proposes development of both sides of the rail line. Aside from funding and land ownership aspects, the development will be conditioned by topography, physical and other constraints. The key issues comprise:

- The rail line is on a 4-5m embankment above the sports field to the west of the line;
- Slade Brook flows from north to south on the west side of the rail embankment and flooding of the area is perceived as a risk;
- The ground on the east side of the rail line rises relatively steeply towards the Town Centre (e.g. at 5% along Northampton Road);
- Access across the rail line is provided only in one location, the Northampton Road rail-over-road bridge. The bridge has substandard headroom for vehicles (3.9m), footways are extremely narrow and, with guard rails, are less than 1m in effective width (and possibly less than the 0.9m required for wheelchair access); thus the pedestrian (and disabled user) environment is poor and poses a possible barrier to movement; and
- Traffic congestion occurs in peak periods at the Northampton Road/Northfield Avenue junction owing to traffic flows greater than the capacity of the junction. This congestion is occasionally exacerbated by the requirement for high vehicles to use the centre of the road underneath the railway (due to the low arch height) and the fact that queuing traffic (in the other direction) impedes this, forcing such vehicles to wait and causing “blocking-back” into the junction.

6.2.4 The Preferred Options AAP of August 2008 proposed a number of measures to develop and regenerate the Station Area with the following objectives:

- To make Kettering Station a “gateway” to Kettering;
- To capitalise on the good train service connections with London and elsewhere by extensive development of the area; and
- To improve the connection between the Station and Town Centre to make Kettering a more attractive place to visit and to generate use of the facilities to be implemented as other parts of the Suite 16 programme (e.g. Market Square, Wadcroft Shopping area etc.).

6.2.5 The Preferred Options AAP of August 2008 proposed that development on the east side of the railway should comprise a rail/bus/taxi/cycle transport interchange, office development, a hotel and a multi storey car park; on the west side development would comprise university or office buildings and an “interceptor” car park – the latter was aimed, inter alia, at “intercepting” cars before the Northampton Road/Northfield Avenue junction.

6.3 Station Quarter Proposals

6.3.1 The Station Quarter study developed these master plan proposals further to identify engineering and other issues which would affect their implementation. The key points, and the responses for inclusion in the Transport Strategy, are summarised in this section.

6.3.2 Station Road Connection to the Town Centre – improvement of Station Road is essential to link the Town Centre and the redeveloped Station area. A number of
options to improve connectivity, especially for buses, pedestrians and disabled users, were proposed in the Station Area Study, all of which involved:

- Footway widening and high quality public realm treatment (see following) to deliver a "step-change" in surface and geometry quality thus improving connectivity between the Station and Town Centre and improving the quality of the pedestrian (and cycle) experience;
- Improved pedestrian crossing of Northfield Avenue (at its junction with Station Road) to increase the overall connectivity of the Station and Station Quarter;
- Retention of the local function of the street (access to frontage developments and car parks);
- Return of Station Road to two-way traffic working;
- Integration with the Station Area Plaza and the Transport Interchange (see following); and
- Improved pedestrian crossing facilities at the Sheep Street/Northampton Road junction.

6.3.3 Station Plaza, Transport Interchange and the Public Realm – the Station Plaza is the focus of the development of the east side of the railway. A scheme has been developed which: integrates a new transport interchange (with bus, taxi, “kiss-and-ride” for access to rail services and cycle parking); vastly improved public realm; integration of the improved pedestrian access along Station Road; and provision of access to the proposed multi-story car park and the cycle/pedestrian connection to the west of the railway (see following).

6.3.4 East/West connections across the railway – four options were considered in the Study to improve connectivity across the railway (including to/from the “interceptor” car park and the Station), namely:

- Option 1 – construction of a separate pedestrian/cycle subway near the existing Northampton Road rail-over-road bridge using “thrust bore” methods;
- Option 2 – construction of a new rail bridge with a widened carriageway and standard headroom to replace the existing rail-over-road bridge;
- Option 3A – modifications to existing Rail Station footbridge to provide pedestrian/cycle link between east and west sides of railway; and
- Option 3B – construction of a new pedestrian/cycle bridge. The bridge would connect the Station Plaza/Interchange east of the railway with the development, “interceptor” car parks, the residential area and Kettering Leisure Village west of the railway and link with the proposed programme of Green Routes (see Section 7).

6.3.5 Analysis showed Option 3B to be the only realistic option within the likely constraints of time and funding.

6.3.6 East Car Park and West Interceptor Car Park – the development plan incorporates new multi-story car parks on both sides of the railway. At this stage, the capacity of the car parks is not finalised but the objectives of the two car parks is:

- To provide adequate car parking;
- To replace the existing north and south car parks and to allow for growth in rail park-and-ride activity;
- On the western side of the railway line, the aim of the car park is to “siphon off” car/rail connection/commuting traffic so that there is no need for traffic to pass under the narrow Northampton Road railway bridge and through the stressed Northfield Avenue/Northampton Road junction;
To provide parking for long stay visitors to the Town Centre who would then access the Town Centre via the new bridge over the railway and the public realm scheme along Station Road; and

To provide parking for the development proposed for the west side of the railway.

**Summary of Station Quarter Transport Schemes**

**Objectives**
The Station Transport Hub is an integral part of the Station Quarter development. The specific objectives of the Hub are to: (i) encourage commuter mode shift from private cars to public transport for rail commuters; (ii) to serve the proposed Station Quarter development and therefore, encourage public transport use; and (iii) to provide bus connection between the Town and the Station to improve the level of connection between the Town Centre and the Station.

**Station Quarter Development**
The Station Quarter is an integrated development involving new car parks, land development and a transport interchange.

The transport interchange “hub” will support the Station Area development through the promotion of a bus terminus, taxi waiting facilities, cycle parking, integration of the Green Links routes with a new pedestrian/cycle crossing of the rail line and public realm improvements along Station Road to improve connectivity to the Town Centre.

Adequate parking will be provided to replace the existing north and south car parks, allow for growth in rail/car park-and-ride and for other uses such as long-stay parking and parking for the proposed development.
7. DETAILED DEVELOPMENT – PEDESTRIAN/CYCLE NETWORK

7.1 Objectives

7.1.1 The objective of the pedestrian and cycle strategy is to improve facilities for pedestrians and cyclists to ensure safe and convenient routes to/from the Town Centre and thereby to assist in promoting mode shift away from cars to more sustainable modes.

7.1.2 Walking and cycling offer great flexibility, are sustainable and have minimal cost to the end user. They therefore form the backbone of the transport strategy and are fully integrated into the road network, junction designs and public realm proposals.

7.1.3 Increasing the mode share of sustainable modes is especially desirable given the wider impacts on society-at-large as a result of their increase. Recent research published in the Draft Infrastructure Toolkit for Cycling Towns (Cycle England, 2009) shows unequivocally that increased cycling rates correlate with reduced costs for the NHS, lower rates of premature deaths, lower levels of work absenteeism, reduced pollution and reduced congestion. If these factors are taken into account, investment in cycling (and walking) represents considerable value for money.

7.2 System Development

7.2.1 The transport strategy seeks to improve conditions for, and to encourage, pedestrians and cyclists in the Town Centre. The Town Centre is relatively compact with a cross-centre distance of about 700m (Northampton Road to Northall Street or Northfield Avenue to Victoria Street). National Planning Policy Guidance 13 (Transport) (PPG13) states that walking “offers the greatest potential to replace short car trips, particularly [for trips] under 2km [in length]” and additionally suggests a reasonable cycling radius of up to 5km. It is clear therefore that walking and cycling offer the potential to enable a substantial modal shift in the town centre. Furthermore, given that the majority of the town of Kettering is located within 2km of the Town Centre, the opportunity clearly exists to facilitate a substantial mode shift across the town as a whole.

7.2.2 The combination of the historic and pedestrian-oriented layout means that Kettering has a great opportunity to encourage a sustainable modal shift to walking for local trips. A part of this encouragement will be appropriate parking provision and controls (discussed in Section 4), the so called “stick” measures, combined with positive measures, the “carrot” measures, to assist walking and cycling (in addition to public transport use).

7.2.3 Cycling offers a significantly greater sphere of accessibility but, unlike walking which is inherently integrated into the transport network through the standard inclusion of footways in most urban highway scenarios, increased traffic levels and complex traffic engineering measures has led roads to become progressively more hostile places for cyclists. The Transport Strategy combats this by drawing on the “Green Links” programme which was designed (primarily) for leisure users and expands and integrates it into the wider network in an attempt to provide cycle-friendly and cycle-specific infrastructure throughout the town; thus achieving the objective of making cycling a safe, convenient and moreover attractive modal choice.

7.2.4 It is accepted that the demographic split of Kettering (above average proportion of over 65’s) would not implicitly lend itself to a major shift to walking and particularly cycling; which is further complicated by gradient, particularly in the west of the town. Despite this, the majority of the residents of Kettering are under 65 and the majority of those would be capable of choosing these modes. Furthermore, with the exception of the purchase cost of a bicycle (which is minimal in comparison to a car), the financial
commitment to use these modes is low. Finally, experience elsewhere shows that walking and cycling are activities which, once part of a lifestyle, can often continue into old age, improving activity levels in this age group and promoting health and vitality.

7.3 Pedestrian and Cycle Measures

7.3.1 A key policy, developed by KBC in co-operation with NCC (and cascading from strategic Green Links identified in the East Midlands Regional Spatial Strategy), is the development of “Green Links” with the objective of making walking and cycling safe and pleasant. The proposed Green Links comprise physical and operational measures, both on and off road, aimed at encouraging people to travel sustainably by linking main destinations and residential areas through good quality walking and cycle routes. The Green Links programme was consulted upon in principle in 2008 and to date, various cycle measures have been implemented (mainly approaching the Town Centre, e.g. along Barton Road, St Mary’s Road and London Road) and other schemes are programmed or under construction (e.g. along Rockingham Road and Northfield Avenue).

7.3.2 The Transport Strategy seeks to incorporate and link these existing and planned Green Link schemes and other cycle and pedestrian measures to improve accessibility into and within the Town Centre. The strategy is illustrated on Drawing D12226T037 and the important cycle and pedestrian routes/proposals are:

- **Northfield Avenue** – it is proposed to construct a shared footway and cycle route along the length of Northfield Avenue (NCC Green Link proposal) and this is due for completion prior to the end of the 2009/2010 financial year. This would be off-road and located adjacent to the carriageway. It will comprise a continuous paved width (asphalt surface and generally 3m wide) which is available for the use of cyclists and pedestrians simultaneously. The low number of accesses and side roads on Northfield Avenue lends itself to an effective use of off-road cycle infrastructure (as the utility of this is not disrupted by a constant need to stop and/or give way) but it is important, if possible to also provide on-road infrastructure (for example cycle lanes) to provide users the choice depending on their particular routing patterns.

- **Lake Avenue and Rail Crossing** – it is proposed to construct an off-road shared footway and cycle route along Lake Avenue (NCC proposal). Measures are being sought to connect this route with a proposed new footbridge over the railway as part of the Station Quarter development strategy. The new bridge will be available for cyclists but it must be recognised that the level difference means that cyclists would need to use the lifts (provided for car park users and pedestrians). Investigations are in progress to connect to the existing underpass under the railway opposite Meadow Road with Northampton Road to provide an alternative connection between the Town Centre and the west of the town and thereby avoid heavily trafficked Northfield Avenue/Northampton Road junction. At a minimum, it is proposed that a cycle route on Northampton Road be installed and extended under the railway bridge through the use of Diagram 1057 road markings (i.e. large cycle symbols) which are not within a marked cycle lane. This would alert drivers to cyclists in the main stream of traffic and ensure a continuous route choice for those cyclists who wish to use it. The carriageway under the bridge is unfortunately too narrow to include full cycle lanes and it is noted above that replacement of the railway bridge in anything less than the long term is unlikely. It is also proposed that off-road cycling is allowed under the railway bridge given the likely perception of cycle-hostility on Northampton Road. This is unlikely to cause any major conflicts with pedestrians (as the flows of both are low) but the situation will be kept under review. Off-road facilities will be
integrated in the new junction with Northfield Avenue which is planned to be delivered in the 2010/2011 financial year. It is clear that these cycle facilities are less than desirable however, given the major constraints, they represent a pragmatic solution.

- **Bowhill Link** – The Strategy drawings show a potential link alongside the railway which connects Northampton Road and the underpass at Meadow Road. This link currently exists in an informal form and proposals currently exist to formalise this provision. The proposal is included in a provisional manner as its delivery is tied to the requirement to address the security/safety issues which currently exist along this route and the need to work in collaboration with adjoining property owners.

- **Station Road** – the proposed public realm improvement along Station Road while mainly aimed at improving conditions for pedestrians, will permit both on-road cycling (in this case the unsegregated sharing of roadspace between cycles and vehicles which is achievable given the low vehicle flows and speeds) and a shared cycle footway route (in a similar manner to the proposed link on Northfield Avenue) along Station Road to connect to Sheep Street and Market Street. The latter are subject to public realm improvements (see Section 8) and will be used only by access traffic and buses (on some sections) and thus will provide a good environment for cyclists and pedestrians. The improvements along the entire length of Station Road will also include other measures to assist cycles and pedestrians, namely:
  - High quality pedestrian facilities to provide a welcoming route between the Station and the Town Centre;
  - Cycle parking close to the Station; and
  - Improved crossings for pedestrians and cycles of Northampton Road to access Sheep Street to ensure a high quality continuous route between the Station and Sheep Street.

- **Meadow Road** – it is proposed to provide vehicle access to/from the new Wadcroft retail centre via Trafalgar Road (see Section 3) and a new road extension is proposed to connect to a new junction on Northfield Avenue. This will transfer traffic from the primarily residential Meadow Road to Trafalgar Road and will therefore permit the existing Meadow Road to be converted to cycle/pedestrian/local access only function (see Section 7). The junction of Meadow Road with Northfield Avenue will be closed to vehicles and replaced with an improved junction at Trafalgar Road/Northfield Avenue designed to accommodate future development (to/from Wadcroft car parks) traffic flows. Meadow Road will provide user (frontage occupier) dedicated parking and measures to encourage low speed operation and will provide an environment that is conducive to pedestrian and cycle use. The road will thus provide good linkage: (i) to the Town Centre from the proposed New Residential Quarter; (ii) with the proposed pedestrian/cycle route along Northfield Avenue (see above) and (iii) to the existing underpass under the railway and therefore to the residential area bounded by Rothwell Road and Northampton Road, in the west of Kettering;

- **High Street** – it is appreciated that there is some concern over the shared use of pedestrian areas with cycles although current guidance (Traffic Advisory Leaflet 9/93) indicates that cyclist behaviour is proportional to the number of pedestrians in the area and that on the whole they are respectful of pedestrians. In effect, such concerns are unfounded and public opinion tends to exaggerate the potential for conflict and that “there are no real factors to justify excluding cyclists from pedestrianised areas”. This aspect will be consulted upon and then, the Town Centre Strategy proposes to re-visit the traffic regulation orders to permit
cycles to use the current pedestrian zones of the High Street (Fig 7.1). It is important for cyclist legibility that access is consistent across the Town Centre (i.e. without difficult-to-identify pockets of regulation which prohibit bicycles) and to that end, Gold Street and the High Street are important areas in the Town. It is also noted that cyclists in these areas are unlikely to be “through-cyclists” and allowing cycles in the area would support the existing provision of cycle parking here which technically cannot be legally cycled to at the present time;

Figure 7.1: Current Traffic Access Restrictions on High Street

- **London Road/Silver Street** – the proposed improvements to the roads in the Town Centre roads strategy allows Silver Street to be downgraded from a traffic route to fulfil a local access/bus/cycle/pedestrian function and the physical layout of the street will seek to achieve this strategy;
- **Market Street/Sheep Street** – as part of the wider Town Centre vision, it is proposed to carry out significant public realm improvements along Market Street and Sheep Street (see Section 2). As described, the final form of the scheme is subject to consultation but, any of the schemes proposed will enable pedestrian and cycle improvements to be made, provide disabled access/parking and provide a shared cycle/pedestrian route; and
- **Rothwell Road** – is an important route for access to the north west of Kettering. It is also the main route for access to the General Hospital and the Telford Way Industrial Area. It is also designated as a future Green Link. Given the important strategic nature of this route within the Town from a traffic perspective and the constraints imposed by the railway bridge at its eastern end, cycle facilities on this road will be an important contribution to the desired integrated network for Kettering.

7.3.3 Other measures will be taken as detailed design of improved junctions etc. is undertaken and should include:

- Provision of advanced stop line cycle areas at signal junctions where appropriate and where cycle routes are on-road. Advance stop line facilities have the stop line for traffic set back from the junction by up to 5m. This provides space for cycles to wait ahead of vehicles allowing them to move off in safety upon signal change and in particular, execute right turns without having to turn across the stream of moving traffic. Figure 7.2 shows an example which has used green
surface treatment to emphasise the provision and provide the user with a sense of continuity throughout the network. In addition, Figure 7.2 shows a marked cycle lane in the approach to the junction. It is also worth noting that research shows that the provision of advanced cycle stop lines also has the secondary benefit of increasing pedestrian safety due to the reduced encroachment of vehicles (and cycles) into the crossing area (Allen et al., 2005).

Figure 7.2: Example of an Advance Cycle Stop Line with a Cycle Lane Approach

- Conversion of selected Pelican crossings to Toucan Crossings, e.g. near Rothwell Road roundabout. A Toucan crossing is similar to a Pelican in so far as it is a signalised crossing facility for pedestrians; however, additionally it allows cycles to cross the road without being required to dismount. These should of course be implemented as part of a series of continuous measures which form connected and coherent routing opportunities for cyclists, as opposed to single-point interventions which do nothing to improve overall utility for cyclists.

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Summary of Pedestrian and Cycle Measures within Town Centre Strategy

Objectives
To provide facilities to improve pedestrian and cycle access and circulation within the Town Centre and thereby: (i) influence mode choice away from private cars and towards sustainable modes; and (ii) make the Town Centre a more pleasant place to live, work and visit.

Pedestrian and Cycle Strategy
The strategy will:

- Provide links and facilities within the Town Centre which connect to, and enhance, the Green Links proposals in the outer-suburban areas of the town;
- Ensure that high quality pedestrian, cycle and disabled facilities are integral with the public realm proposals;
- Provide a network of cycle facilities which enable area wide penetration of the Town Centre; key measures will include:
  - Extensive public realm programme to convert key routes to pedestrian/cycle/disabled/access only including Sheep Street and Market Street;
  - Northfield Avenue – shared pedestrian/cycle facility;
  - Meadow Road – shared pedestrian/cycle/access facility and connection to crossing of Northfield Avenue (to be converted from a Pelican to a Toucan) and thus the provision of a connection to the west of Kettering via the existing rail underpass;
  - Lake Avenue and railway crossing via new bridge, Station Road and Sheep Street – to provide connection to SW Kettering for pedestrians; measures are being considered to assist cycles;
  - Extension of the London Road Green Link through the Town Centre via Horsemarket and Silver Street to provide NS connection and to connect with west connection along St Mary’s Road;
  - Rothwell Road – on-road scheme to connect to Northfield Avenue scheme with conversion of Pelican to Toucan crossing of Rothwell Road;
- Inclusion of cycle advance stop lines within new and existing junctions;
- Cycle parking at Station to assist interchange and encourage cycle/rail commuting; and
- Revisit traffic regulations for High Street/Gold Street to consider if shared pedestrian and cycle use is acceptable.
8. DETAILED DEVELOPMENT – PUBLIC REALM SCHEMES

8.1 Objectives

8.1.1 The strategy is to improve the quality of the public realm to make Kettering a more attractive and better place to live, work and shop. Public realm proposals are an integral part of the Transport Strategy since it is proposed to integrate the improvements through some traffic restrictions coupled with pedestrian and cycle facilities on a number of streets; such schemes have implications for servicing, access and bus routes.

8.2 System Development

8.2.1 In the past, Kettering has established an extensive pedestrianised area comprising High Street, Gold Street, Newlands and the easternmost end of Meadow Road.

8.2.2 Recently, an ambitious public realm project to improve Market Place has been designed, implemented and was officially opened on the 30th August 2009. It is proposed to build on this solid base with the schemes detailed herein.

8.3 Schemes and Scheme Proposals

8.3.1 Station Road – the objectives of the scheme are to improve the pedestrian, cycle and bus linkages between the Station and the main part of the Town and thereby create a “gateway” to Kettering. The proposed scheme has been developed to a concept level and KBC is initiating discussions with stakeholders as the public realm elements are part of a wider scheme (notably Network Rail which is the land owner for the potential development area around the Station) to establish a scheme programme. The development scheme is described in outline in Section 6 and the form of scheme shown in Figure 8.1. The key public realm elements along Station Road are:

- The widening of footways and their treatment (paving, street furniture, wayfinding signs, planting etc.) to conform to the principles established in Market Place, to improve the quality of the pedestrian experience and to bring surfaces and footway geometry up to a standard acceptable to disabled users;
- Integration with new a bus/rail/taxi terminal located in front of (but not conflicting with the view of the listed Station building); and
- Improved pedestrian crossings of Northampton Road at the junction with Station Road/Headlands/Bowling Green Road to improve pedestrian linkages.
8.3.2 Meadow Road – Meadow Road is currently the main access to/from the existing ground level Wadcroft and Commercial Road car parks. As noted in Section 2, the Wadcroft area is scheduled for redevelopment as one of the Suite 16 series of projects and as a major retail area. The development will include a major new multi-storey car park and it is proposed that a new access route be created by extending Trafalgar...
Road to a new junction on Northfield Avenue (see Section 3). This will permit a change of function of Meadow Road to be more in keeping with its residential status. The scheme will include reconfiguration of the road to become pedestrian, cycle and local access only and measures will incorporate landscaping and surface treatment. The scheme is at a concept level only and consultation, planning and design have not yet been undertaken. A typical example layout to illustrate the concept is shown in Figure 8.2 above.

8.3.3 Phase 2/3 Market Street/Sheep Street – it is KBC’s intention to improve the public realm of Sheep Street/Market Street and to integrate the measures with the recently completed Market Place project. The project will restrict general traffic but the roads will be available for frontage servicing, access to otherwise “land-locked” premises (such as those in West Street) and, of course, pedestrians, cycles and disabled users. The final form of the Phase 2/3 scheme is nearing the completion of detailed design (March 2010) and work on-site is scheduled to commence at the end of May 2010. The exact extents of access/servicing/etc. will be finalised prior to the submission of the appropriate Traffic Regulation Orders;

8.3.4 Wadcroft – the proposed redevelopment of the Wadcroft area as a major new retail centre will incorporate a high quality public realm approach. The AAP (and subsequent further development of the local area Masterplan) envisages that Wadcroft itself will be a high quality pedestrian and cycle facility (with suitable account taken of disabled users) and that the same public realm theme will be extended into the adjacent existing pedestrianised areas of High Street and Gold Street. The Masterplanners for Wadcroft have stressed strongly that a high standard of public realm treatment – particularly for the “square” (Bakehouse Hill) where High Street, Gold Street and Lower Street meet – is essential for the success of the new retail area.

8.3.5 Soans Yard – Soans Yard is a Suite 16 project. The aim is to regenerate the Yard but to maintain the structure and key buildings which would be subject to renovation. The primary focus of the area would be on the provision of artisanal and niche shopping with part of the proposed plan for the area being to create a high quality pedestrian route which connects Market Street and High Street/Dryland Street and which will further contribute to the regeneration of the area. No programme has yet been determined.

8.4 Integration

8.4.1 The public realm improvements are not envisaged as “stand-alone” schemes, but as part of the wider strategy for the development of the transport network. All new or improved roads/junctions will embody a good standard of public realm infrastructure.

8.4.2 It is important that the Public Realm follows a consistent theme throughout the Town and thus KBC are developing Public Realm Strategy (through consultants Gillespies) which will establish the palette of materials, signage, planting, open space etc. and which will be required to be followed by the developers for the various regeneration projects (Wadcroft, Soans Yard etc).
**Summary of Public Realm Strategy**

**Objectives**

The strategy is to improve the quality of the public realm to make Kettering a more attractive place to live, work and shop. Public realm proposals are an integral part of the Transport Strategy since it is proposed to integrate the necessary improvements through some traffic restrictions coupled with pedestrian and cycle facilities on a number of streets. Such schemes have implications for servicing, access and bus routes.

**System Development**

The public realm strategy will improve key focus points in the Town Centre through a programme of physical works to provide facilities for pedestrians, cycles and the disabled. Emphasis will be placed on: (i) good design in keeping with Kettering’s past; (ii) building upon the recently completed Market Place scheme; and (iii) ensuring that construction employs a high standard. While measures will reduce direct vehicle access to frontage properties of various roads, schemes will be designed to provide:

- Alternative facilities for servicing and local access to premises and businesses;
- Good accessibility to public transport;
- Retained and improved accessibility for disabled users; and
- Integration with other traffic improvement and development measures.

Public realm improvements are not envisaged as “stand-alone” schemes – the measures are part of the wider strategy for the development of the transport network and all new or improved roads/junctions will also embody a good standard of public realm infrastructure. A Public Realm Strategy will be developed that will establish the palette of materials, signage, planting, open space etc., to ensure this consistency.
9. DETAILED DEVELOPMENT – COST

9.1 Indicative Implementation

9.1.1 An indicative estimate has been made of the costs of implementation of the Transport Strategy. There are extensive uncertainties at this stage – for example the extent of utility diversions – but estimates have been included for works, utilities, overheads/profit, design fees, commuted maintenance sums and S278 design checks. However, the estimates are indicative only and exclude any land or property acquisition necessary to realise any schemes, development costs and the costs for schemes which are committed (or have committed budgets). The estimates are as shown in Table 9.1:

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<th>Location and Road Improvements</th>
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<th>Sub Total</th>
<th>Total</th>
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| Public Realm Schemes | |       |       |
| Sheep St Preliminary estimate - will be derived from ongoing Phase 1/2 feasibility study | | £1,820,000 |       |
| Market Street feasibility study From current Study | | £1,250,000 |       |
| Meadow Rd From current Study | | £875,000 |       |
| Station Road From Station Q Study | | £1,250,000 |       |
| Silver Street from AAP | | £1,480,000 |       |
| Horsemarket from AAP | | £1,780,000 |       |
| High Street from AAP | | £980,000 |       |
| Sub Total | | £7,965,000 |       |

| Station Quarter and Wadcroft | Preliminary estimate from Station Quarter Study | |       |
| PT Interchange and Station Plaza | | £1,480,000 |       |
| Pedestrian Bridge and E and W ramps Preliminary estimate from Station Quarter Study | | £1,700,000 |       |
| E and W Car Parks inc access roads, surface car parks , | | £12,250,000 |       |
| Wadcroft and Soans Yard Not included – part of development package | |       |       |
| Sub Total | | £15,430,000 |       |

| Green Links and Cycle Schemes | NCC budget Not included | |       |
| Town wide | |       |       |
| Committed Schemes Market Place Not included Not included | |       |
| Restaurant Quarter parking etc Not included Not included | |       |
| Ancilliary, Support Scheme Costs Traffic management, minor works, | Allow percentage – Include estimate say 5% of junction and road schemes | £195,000 |       |
| Town Centre area wide street enhancement/street furniture, | |       |       |
| Sub Total | | £195,000 |       |
| Sub Total | | £27,492,000 |       |