CUSTOMER AND PARTNERSHIPS COMMITTEE – 13 OCTOBER 2010

A special meeting of the Customer and Partnership Committee will be held at 5.30pm on Wednesday, 13 October 2010 in Committee Room 1, Town Hall, Rugby.

Councillor Claire Edwards
Chair of Customer of Partnerships Committee

A G E N D A

PART 1 – PUBLIC BUSINESS

1. Minutes.
   
   To confirm the minutes of the meeting held on 2 September 2010.

2. Apologies.

   To receive apologies for absence from the meeting.

3. Declarations of Interest.

   To receive declarations of –

   (a) personal interests as defined by the Council’s Code of Conduct for Councillors;

   (b) prejudicial interests as defined by the Council’s Code of Conduct for Councillors; and

   (c) notice under Section 106 Local Government Finance Act 1992 – non-payment of Community Charge or Council Tax.

   **Note:** Members are reminded that they should declare the existence and nature of their personal interests at the commencement of the meeting (or as soon as the interest becomes apparent). If that interest is a prejudicial interest the Member must withdraw from the room unless one of the exceptions applies.

   **Membership of Warwickshire County Council or any Parish Council is classed as a personal interest under the Code of Conduct. A Member does not need to declare this interest unless the Member chooses to speak on a matter relating to their membership. If the Member does not wish to speak on the matter, the Member may still vote on the matter without making a declaration.**
4. Local Transport Issues and Air Quality – Report by Adrian Hart, Team Leader – Transport Planning, WCC

_any additional papers for this meeting can be accessed here via the website._

The Reports of Officers (Ref. CUS 2010/11-4) are attached.

Tea will be served in the Members` Room at 5.00 pm.

**Membership of the Committee:-**

Councillors Ms Edwards (Chairman), Miss Lawrence, Lewis, Mahoney, Mrs Peach, Sewell, Mrs Walton, Mrs Watson and Miss Watts.

*If you have any general queries with regard to this agenda please contact Elizabeth Routledge, Democratic Services Officer (01788 533522 or e-mail Elizabeth.routledge@rugby.gov.uk).*

*If you wish to attend the meeting and have any special requirements for access please contact the Democratic Services Officer named above.*
**AGENDA MANAGEMENT SHEET**

**Name of Meeting**  
Customer and Partnerships Committee

**Date of Meeting**  
13 October 2010

**Report Title**  
Local Transport Issues and Air Quality

**Ward Relevance**

**Contact Officer**  
Elizabeth Routledge, Democratic Services Officer,  
Tel: 01788 533522

**Summary**  
The Customer and Partnerships Committee has called a special meeting to look at transport issues as a result of discussions arising from an update on the Joint Transport Review in June 2010. This paper, drafted by the Team Leader - Transport Planning, WCC, addresses a number of particular issues highlighted by committee members in advance of the meeting.

**Financial Implications**  
There are no financial implications arising from this report.

**Risk Management Implications**  
There are no risk management implications arising from this report.

**Environmental Implications**  
There are no environmental implications arising from this report.

**Legal Implications**  
There are no legal implications arising from this report.

**Equality and Diversity**  
No new or existing policy or procedure has been recommended.
Summary
The Customer and Partnerships Committee has called a special meeting to look at transport issues as a result of discussions arising from an update on the Joint Transport Review in June 2010. This paper, drafted by the Team Leader - Transport Planning, WCC, addresses a number of particular issues highlighted by committee members in advance of the meeting.

BACKGROUND

This report provides some background information on a number of transport issues which have been raised in advance of the Customer and Partnerships Committee meeting on 13th October 2010. These relate to:

1. How the County Council undertakes traffic modelling, and the extent to which it assesses air quality within designated Air Quality Management Areas;
2. How much this process is governed by legislation, and how much freedom there is to approaching the issue;
3. What are the likely implications for air quality arising from major projects including the Rugby Western Relief Road, the Town Centre Pedestrianisation proposals, and the proposed growth in the Borough Council’s LDF Core Strategy at the Gateway Rugby and former Rugby Radio Station sites;
4. To what extent does traffic modelling take account of the cumulative effect of such projects;
5. What the impact of reduced capital expenditure in the first 3-5 years of the new Local Transport Plan (LTP3) will be on schemes such as the Town Centre Pedestrianisation;
6. Whether the County Council should be prioritising schemes such as an improvement to the Avon Mill roundabout as a result of the opening of the Rugby Western Relief Road and the proposed development of the Gateway Rugby site; and
7. Whether bridge repairs on main arterial routes (e.g. Hillmorton Road and Clifton Road) will be prioritised within the available funding during LTP3.
Each of these issues is dealt with in turn below.

1. How the County Council undertakes traffic modelling, and the extent to which it assesses air quality within designated Air Quality Management Areas

The County Council, in conjunction with the promoters of the Rugby Radio Station site, has developed an S-PARAMICS micro-simulation traffic model of Rugby. This model was developed from work originally undertaken by the County Council to evaluate the proposals for the Town Centre Pedestrianisation.

Traffic modelling is principally undertaken by the County Council for one or more of the following purposes:

- Assessment of individual transport schemes or proposals;
- Evaluation of spatial development proposals, usually as part of the preparation of District/Borough Development Plans;
- Evaluation of individual development sites, typically to corroborate evidence submitted in Transport Assessments.

Preparation of individual transport models follows guidance in the Design Manual for Roads and Bridges (DMRB), and covers issues such as data collection, model development and model validation. Models are typically based on a mixture of data including traffic counts, origin and destination information (based on road-side interviews), journey runs, census information and other data sources (e.g. car park usage, school travel surveys etc.). Following the preparation of a base year model (which replicates the current situation), a future year model will be produced for a given year that takes into account predicted background traffic growth and committed development. These models will be audited by a third party before they are used for testing to ensure they are robust.

S-PARAMICS has the capability to help assess the air quality implications of individual proposals on Air Quality Management Areas in one of two ways:

1. Changes in traffic flows can be used as a proxy for likely changes to air quality on a given route or at a particular junction; or
2. A specific element of the software can be used to record the accumulation of emissions throughout the model as vehicles traverse the network. The rate of accumulation is a direct function of the individual vehicles’ speed and acceleration of the simulation. Whilst this will give data on cumulative emissions, it should be noted that S-PARAMICS does not include a dispersion model. The built in figures which S-PARAMICS uses to calculate emission figures are derived from the MODEM database assembled by the Transport Research Laboratory (TRL) on the M25 in the mid-1990's. Further work to develop the capabilities of S-PARAMICS in this area is currently being undertaken as part of the establishment of the PHEM (Passenger car and Heavy-duty Emissions Model) Database, which will use more recent data collected by TRL on the impact of speed, acceleration, engine type and size and Euro vehicle class on emissions. This information will be incorporated into a future issue of the S-PARAMICS software.

Our use of S-PARAMICS to evaluate air quality implications arising from transport schemes and development proposals is currently limited. This is primarily due to the
fact that our various S-PARAMICS models within the County (including Rugby) have only recently been developed. In lieu of this, we have tended to commission assessments of air quality from outside consultants to inform the preparation of individual schemes. In relation to the Town Centre Pedestrianisation proposals in Rugby, AECOM (the Borough Council’s retained air quality consultants) undertook this work.

As part of our supporting evidence to the Borough Council on the LDF Core Strategy, we have not been asked for advice on the air quality implications of the growth proposals at the Gateway Rugby and Rugby Radio Station sites. We could however provide some advice on this based on the capabilities of S-PARAMICS described above. In terms of individual planning applications, the responsibility for identifying air quality impacts rests with the developer, particularly where there is potential for an existing Air Quality Management Area to be adversely affected.

2. How much this process is governed by legislation, and how much freedom there is to approaching the issue

As noted above, the process for carrying out traffic modelling is governed by the guidance in the Design Manual for Roads and Bridges (DMRB). This sets out the approach to traffic modelling which is required by the Department for Transport in the preparation of a Major Scheme Business Case. We have followed these requirements in the preparation of the Rugby S-PARAMICS model, along with the S-PARAMICS Good Practice Guide produced by SiAS.

3. What are the likely implications for air quality arising from major projects including the Western Relief Road, the Town Centre Pedestrianisation proposals, and the proposed growth in the Borough Council’s LDF Core Strategy at the Gateway Rugby and former Rugby Radio Station sites

(a) Rugby Western Relief Road: The original Major Scheme Business Case for the Rugby Western Relief Road included an assessment of the predicted impacts on air quality.

To assess the impact of the operation of the road, an established screening technique was used to determine the changes in air quality. The results of this method showed that receptors located on routes such as Bilton Road, Corporation Street and Newbold Road would experience a significant reduction in pollutant concentrations with the new road in place. With the Western Relief Road in place, predicted concentrations of all pollutants were predicted to be below the relevant air quality criteria.

The results of the assessment showed reductions in traffic flows in the town centre at locations where air quality was predicted to exceed the Nitrogen Dioxide ($\text{NO}_2$)objective. The assessment concluded that the predicted reductions in flows of up to 12% would lead to a reduction in emissions of pollutants and hence an improvement in air quality in these areas. It was felt therefore that the relief road represented a valuable air quality improvement measure for the town centre. In addition, the Western Relief Road would allow the implementation of other traffic management measures that would bring an improvement to air quality in the town centre at locations such as the Warwick Street gyratory.
(b) Rugby Town Centre Pedestrianisation Proposals: A study of the air quality implications of the proposed Town Centre Pedestrianisation proposals was carried out on behalf of the County Council by AECOM (the Borough Council’s retained air quality consultants) in 2009. This considered the impact of the scheme on both NO₂ and Particulates (PM₁₀).

In relation to Nitrogen Dioxide (NO₂), the results of the assessment showed the following:

(i) Annual mean NO₂ concentrations in Rugby town centre were predicted to decrease by 2011 as a result of the pedestrianisation proposals being implemented;

(ii) The most significant impact of the proposed pedestrianisation scheme on NO₂ concentration (up to 25% increase) corresponded to a ‘Large’ magnitude of change and ‘Moderate Adverse’ significance of impact on Regent Street, Regent Place and Albert Street. This was unsurprising given the change in traffic levels that is predicted to occur as a result of the closure of Church Street/North Street;

(iii) Park Road and Manor Road were predicted to experience increases in annual mean NO₂ concentrations as a result of the scheme, corresponding to a ‘Small’ magnitude of change and ‘Slight Adverse’ significance; and

(iv) North Street, Church Street and certain sections of Railway Terrace were predicted to experience significant reductions in annual mean NO₂ concentration with the scheme in place. The significance of impact is predicted to be ‘Substantial Beneficial’ or ‘Moderate Beneficial’ in these areas.

In relation to Particulates (PM₁₀), the assessment showed the following:

(i) Annual mean PM₁₀ concentrations in Rugby town centre were predicted to decrease by 2011 as a result of the pedestrianisation proposals being implemented;

(ii) The maximum impact of the pedestrianisation scheme on annual mean PM₁₀ concentrations was predicted to be of ‘Very Small’ magnitude and of ‘Negligible’ significance. Park Road, Regent Place, Regent Street and Albert Street were likely to be the main roads affected by these impacts; and

(iii) Reductions in annual mean PM₁₀ concentrations of ‘Small’ magnitude were predicted to occur along North Street, Church Street and Oliver Street, representing a ‘Slight Beneficial’ significance of impact.

In summary therefore, whilst moderate adverse impacts were predicted to occur along some roads, the work undertaken by AECOM at that time concluded that the proposed pedestrianisation scheme was not considered likely to cause any new exceedances of the air quality objectives for either NO₂ or PM₁₀ at locations of relevant exposure within the town centre.
A Detailed Assessment of air quality has subsequently been carried out by AECOM on behalf of Rugby Borough Council earlier this year, the main aim of which was to highlight potential impacts on concentrations of annual mean nitrogen dioxide (NO₂) and the existing Air Quality Management Area because of recent new developments and schemes in Rugby. The Detailed Assessment studied NO₂ concentrations at two areas in Rugby, these being the town centre and the Dunchurch junction north of the M45. The main findings of the Detailed Assessment in relation to the Town Centre Pedestrianisation proposals were as follows:

- **Short-term monitoring results** undertaken as part of the Rugby Pedestrianisation study have highlighted potential exceedences of the objective at sites along narrow roads in the town centre because of poor dispersion. Uncertainties are associated with the 3-months short-term monitoring results although adjustments, period and bias, have been undertaken to improve the reliability of the results.

- **Modelled results** were verified against monitored data from long-term and short-term monitoring sites. Steps were undertaken to reduce the uncertainties of the short-term results. The inclusion of all monitoring data available within the Borough in the verification process forms a worst-case assessment.

- **Annual mean NO₂ concentrations** are predicted to be in excess of the objective at various locations with relevant exposure in 2009 and 2011 in the town centre study area. Maximum concentrations are likely to occur along the B5414 Church Street/North Street/Clifton Road.

- The source apportionment study indicated road traffic as the dominant source of contribution to annual mean NO₂ concentrations in the Borough.

- Along the B5414 Church Street / North Street / Clifton Road, cars and LDVs as well as buses are the main contributor to NOₓ emissions. HDVs are the major NOₓ emitter along Oliver Street.

- NOₓ emissions would have to be reduced by approximately 44% in order to achieve the annual mean NO₂ objective.

It is suggested that in the light of these conclusions, further work to evaluate the air quality impacts of the Town Centre Pedestrianisation proposals be undertaken before the scheme is implemented (see response to issue 5 below).

(c) **Proposed growth in the Borough Council’s LDF Core Strategy at Gateway Rugby and the former Rugby Radio Station site:** No air quality assessments have been carried out by the County Council in relation to the two main development sites within the Borough Council’s LDF Core Strategy. This could however be undertaken using the Rugby S-PARAMICS traffic model (as described in issue 1 above). Individual assessments of the impact of these two developments on the existing Air Quality Management Area in Rugby will be required as part of the planning applications for both sites.

4. **To what extent does traffic modelling take account of the cumulative effect of such projects**

The traffic modelling which the County Council has undertaken to advise the Borough Council on the transport implications of the LDF Core Strategy makes a number of assumptions regarding the future year assessments in 2026, these being:
• The Rugby Western Relief Road, Mill Road/Leicester Road link and Hunters Lane link are all open;
• The proposed Town Centre Pedestrianisation proposals have been implemented;
• That all other committed developments within the town have been implemented, including any key transport mitigation measures;
• A major improvement at Avon Mill and Hunters Lane has been implemented;
• Signalisation of the Warwick Street gyratory has been implemented; and
• Signalisation of M6 Junction 1 (A426) has been implemented.

This list demonstrates that the cumulative effects of known projects and schemes are taken into account in the modelling process.

5. What the impact of reduced capital expenditure in the first 3-5 years of the new Local Transport Plan (LTP3) will be on schemes such as the Town Centre Pedestrianisation

A sum of money has been allocated during the current financial year (2010/11) to prepare a detailed design for the Town Centre Pedestrianisation proposals. This work is well underway, and should be completed next year.

The forthcoming Comprehensive Spending Review is due to report on 20th October 2010, and is likely to signify a reduction in the capital expenditure which is available to the County Council to spend on transport schemes in the next three years. In advance of this, and as part of the preparation of the third Warwickshire Local Transport Plan, an implementation plan is in the process of being prepared for the three year period from 2011/12 to 2013/14. This is likely to focus expenditure on highway and bridge maintenance, along with some investment in casualty reduction measures. There is therefore no likelihood of the pedestrianisation proposals coming forward in the near future unless additional funds can be found, the main source of which could be S106 monies from the redevelopment of the North Street area of the town centre. Even this however may be more than five years away.

6. Whether the County Council should be prioritising schemes such as an improvement to the Avon Mill roundabout as a result of the opening of the Rugby Western Relief Road and the proposed development of the Gateway Rugby site

A preliminary investigation into the feasibility of further capacity improvements at the A426/B4112 Avon Mill roundabout has been carried out by the County Council, over and above those that have been implemented as part of supporting works for the Rugby Western Relief Road.

The main problem affecting the roundabout is that vehicles entering from A426 Leicester Road and B4112 Newbold Road heading towards the town centre experience significant queues and delays, particularly during the morning peak period. The main causes of these problems are that:

• The A426 Newbold Road between Avon Mill and Evreux Way is a narrow single carriageway which is constrained by the River Avon bridge (north of Hunters Lane) and the railway bridge (south of Hunters Lane); and
The limited carriageway width restricts the number of vehicles which can exit the roundabout from the north (i.e. two streams of traffic are channelled into one).

The preliminary design which has been prepared for the scheme includes measures to improve capacity on A426 Newbold Road by widening it to 2-way dual carriageway standard over the River Avon between Avon Mill and a new roundabout at the junction of Hunters Lane.

Further investigations into the performance of the scheme are currently in the process of being undertaken as part of the wider option testing to inform the Local Development Framework Core Strategy. It is envisaged that a significant element of the scheme costs will be met through contributions as a result of future development taking place which impacts upon the performance of the A426 corridor (for example the Malpass Farm and Gateway Rugby sites).

The proposed improvement to the Avon Mill roundabout has been identified in the emerging LTP3 as the highest priority County Road scheme within the Rugby area.

7. Whether bridge repairs on main arterial routes (e.g. Hillmorton Road and Clifton Road) will be prioritised within the available funding during LTP3

In determining priorities for bridge strengthening, the County Council takes account of:

- County Council and wider national transport objectives;
- Engineering assessment;
- Bridge Condition Indicators;
- Specific inspections of reported problems;
- Consultation; and
- Available funding.

Other than some minor repairs to one of the structures at Avon Mill, there are no other major bridge works planned in the Rugby area in the near future. The County Council is currently liaising with Rugby Borough Council regarding some potential bridge strengthening works to the highway structures on Clifton Road and Hillmorton Road where they cross the Great Central Walkway. Both of these bridges are owned and maintained by the Borough Council.
Name of Meeting: Customer and Partnerships Committee
Date Of Meeting: 13 October 2010
Subject Matter: Local Transport Issues and Air Quality

LIST OF BACKGROUND PAPERS

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<tr>
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<th>Description of Document</th>
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* The background papers relating to reports on planning applications and which are open to public inspection under Section 100D of the Local Government Act 1972, consist of the planning applications, referred to in the reports, and all written responses to consultations made by the Local Planning Authority, in connection with those applications.

* Exempt information is contained in the following documents:

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* There are no background papers relating to this item.

(*Delete if not applicable)