CABINET
8 JULY 2008

ITEM NO. .....

DARLINGTON PARK AND RIDE FEASIBILITY STUDY

Responsible Cabinet Member – Councillor David Lyonette
Responsible Director – Richard Alty, Assistant Chief Executive (Regeneration)

SUMMARY REPORT

Purpose of the Report

1. To consider the issues raised in the Darlington Park and Ride Feasibility Study produced by consultants Atkins Highways in March 2008.

2. To make recommendations regarding future action to be taken in respect of this study.

Summary

3. Darlington's transport strategy aims to tackle traffic congestion, improve accessibility and further improve travel safety and security. This can be achieved through using road space more efficiently and influencing travel behaviour through offering choice. One option that has been considered is Park and Ride, which has been used successfully in other towns to provide a new travel choice, in particular for those travelling into the town from the surrounding area, providing a reduction in traffic and thus congestion in town centres.

4. To be attractive to car users, Park and Ride must be equivalent, or indeed superior, to a journey made by the private car in terms of speed, cost and convenience.

5. In developing a Park and Ride scheme the target market has to be identified to enable the service and facilities to be designed appropriately. Clearly, the target market will comprise of existing car drivers and passengers who would otherwise use the private car to access the town centre.

6. Transport consultants Atkins was commissioned in October 2006 by the Council to consider the feasibility of Park and Ride in the Borough. An initial report produced in October 2007 highlighted some inconsistencies in the traffic flows data and this required a reappraisal of the Tees Valley Multi-Modal Model developed by the Joint Strategy Unit. The subsequent revised model was considered robust enough to complete the study, although the process of revising the model did cause some significant delay in the overall process.

7. Initial analysis indicates that the potential for Park and Ride is likely to be limited due the relatively small number of trips that have a destination in the town centre. Many of the trips that have a destination in the Darlington urban area are not accessing facilities in the town centre, but are trips to employment sites (many of which are on the outskirts of the urban area), to residential properties (visiting family and friends), to leisure and social activities based throughout the town and education (schools and colleges).

8. As the majority of the trips that would use a Park and Ride site are from outside the Borough of Darlington, it would be necessary to work with neighbouring authorities to develop and promote the facility. Target trips into Darlington would include commuters and therefore it would be key to work with local employers to analyse current trip-making patterns to their sites and availability of free car parking on site. Darlington does not benefit from large numbers of tourists that utilise other Park and Ride sites in places such as York, Chester, Durham or Oxford.

Recommendation

9. It is recommended that:

   (a) No further work should be undertaken on park and Ride in the short term.

   (b) Park and Ride should be reviewed again when funding decisions are taken on whether to support the Tees Valley Bus Network Improvement bid and Metro proposals.

Reasons

10. The recommendations are supported by the following reason :

   (a) The feasibility study shows that there is currently insufficient demand to develop a business case.

   (b) Providing high quality public transport (bus, rail or Metro) for inter urban trips may provide alternatives to the development of Park and Ride sites.

Richard Alty
Assistant Chief Executive (Regeneration)

Background Papers

Darlington Park and Ride Feasibility Study – Context and Initial Demand Assessment; produced by Atkins; March 2008.

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cc

S17 Crime and Disorder	The contents of this report have been considered in the context of the requirements placed on the Council by Section 17 of the Crime and Disorder Act 1998, namely, the duty on the Council to exercise its functions with due regard to the likely effect of the exercise of those functions on, and the need to do all that it reasonably can to prevent, crime and disorder in its area. It is not considered that the contents of this report have any such effect.
Health and Well Being	No impact.
Sustainability	Reducing car trips in the urban area and increasing trips by public transport would have positive benefits for the environment (potentially reducing emissions). However a modal shift from car to bus for the entire trip would have greater impact.
Diversity	No impact.
Wards Affected	All
Groups Affected	None
Budget and Policy Framework	This report does not recommend a change to the Council's budget or policy framework.
Key Decision	No
Urgent Decision	For the purpose of the 'call-in' procedure this does not represent an urgent matter.
One Darlington: Perfectly Placed	A modal shift from single car driver trips to Park and Ride combining car driver trips and public transport would contribution to Greener Darlington. However a shift completely to public transport would have significantly greater benefits foe the environment.

MAIN REPORT

Information and Analysis

11. To be attractive to car users, Park and Ride must be equivalent, or indeed superior, to a journey made by the private car in terms of speed, cost and convenience. However, evidence from successful Park and Ride schemes in the UK shows that Park and Ride can only be successful when introduced as part of an overall transport strategy and a package of measures that could include:

    (a) re-allocation of highway space (for example a lane on the A690 into Durham);

    (b) pedestrianisation of the main shopping/commercial area (eg York);

    (c) bus priority measures (eg Salisbury); and

    (d) restraint in town centre parking in terms of charges levied and supply of spaces (eg Oxford).

12. In developing a Park and Ride scheme the target market has to be identified to enable the service and facilities to be designed appropriately. Clearly, the target market will comprise of existing car drivers and passengers who would otherwise use the private car to access the town centre. Park and Ride works best when the demand is concentrated into a single corridor and therefore the trips need to originate from the same direction. It is accepted that those people who have access to free parking are less likely to use such a facility as are those who require their vehicles throughout the day.

13. Atkins were commissioned to undertake a four-phase study as follows:

    (a) Inception, data review and best practice – desk research.

    (b) Initial demand analysis – data analysis using the Tees Valley Mutli Modal Model.

    (c) Initial site identification.

    (d) Scheme design and business case.

14. Work has been completed on (a), (b) and (c) but Atkins have not proceeded to Scheme Design stage as they are now awaiting Darlington Borough Council's view on the initial demand assessment.

Methodology

15. Initial demand estimates of the broad potential for Park and Ride have been undertaken by extracting existing car trips by road corridor into Darlington town centre from the Tees Valley Multi Modal Model by means of Select Link Analysis. This uses origin and destination data for trips utilising key links or routes from outside the urban area into the town centre. The model was successfully calibrated and validated by MVA on behalf of the Tees Valley Joint Strategy Unit against actual traffic flows on the highway network in the base year (2005) and was subsequently revised by the Joint Strategy Unit in 2008.

16. The Select Link Analysis identified the number of car trips (ie excluding buses, light and heavy goods vehicles) passing through a screenline on a specified highway link travelling to the town centre (trips in scope). The town centre is defined as broadly the area within the Inner Ring Road. It excludes trips that do not end in the town centre. 12 screenline sites were identified around the fringe of the urban area.

17. The trips in scope were then factored to provide two sets of data. The first was the number of trips at each of the 12 sites during the morning peak period (07:00 – 09:30) and the second was the inter-peak figures (09:30 – 16:00).

18. A number of interception rates were then applied. This estimates the percentage of in scope trips passing the Park and Ride site that would actually use it, and is based on experience elsewhere in the UK. By applying a number of assumptions on the Park and Ride service and the attractiveness of other modes, (in this case public transport and the supply and cost of town centre parking), it is possible to add mode choice into the analysis. The model predicts how many trips would be made to the Park and Ride site, with some drivers changing their route into Darlington to make use of the facility.

Results

19. The results show that during the morning peak (08:00 - 09:00), 1,428 car journeys are destined for the town centre (19% of all car journeys) and 871 on average per hour during the period 10:00 - 16:00 (18% of car trips). These flows have then been factored up for the morning 'travel to work' peak (07:00 – 09:30) and various interception rates applied ie a percentage estimate of how many cars passing a Park and Ride facility would actually use it. Cambridge and Belfast which have successful Park and Ride schemes have an intercept rate of around 15%, whereas in York it is up to 25% (likely to be due to relative low numbers of long stay car parking spaces in the city centre, perceived levels of congestion and high numbers of tourists).

20. The model was run for six potential Park and Ride sites in turn. These were:

    a) North Road (A167).

    b) Little Burdon roundabout (A66/A1150).

    c) Darlington Football Stadium (A66/Neasham Road).

    d) A66/A167 junction (Blackwell).

    e) Coniscliffe Road (A67 from Barnard Castle).

    f) A68/A1(M) junction (West Auckland Road).

21. The results are detailed in Table 1:

Table 1 – Results of Mode Choice Modelling

Site	Estimated P & R Usage		
	AM	Inter Peak (per hour)	All-day [1]
A167 North Road	85	40	288
Little Burdon	101	45	331
Darlington Arena	92	44	315
A66 – A167 Junction	97	41	310
A67	62	27	202
A68 – A1(M) Junction	58	81	332

22. The demand assessments have shown that 'the potential usage of a Park-and- Ride facility for Darlington is likely to be limited. This is due mainly to the relatively small number of trips that are destined for the town centre and the difficulty in providing bus services that produce time-saving compared to the private car.'

Issues and Options

23. A Park and Ride service would have to consider the following issues:

(a) **Site Location** - Sites should foremost optimise and capitalise on the potential demand for intercepting inbound car trips; whilst being acceptable on planning, accessibility, and environment grounds. Park and Ride services should be located conveniently for the user, ideally visible from the radial route. The benefit of this is the service promotes itself by being visible to approaching customers. Sites should also be located outside the congested area to maximise the potential for bus priority measures.

(b) **Bus Service** - The most common form of service provided is that of dedicated low floor buses, departing at intervals of no more than 15 minutes and supported by bus priority measures along the route to the town centre. Operating times are typically between 07:30 and 19:30 Monday to Saturday. An alternative option is to utilize existing service buses.

(c) **Site Design** -

(i) **Clarity** - The site must be clearly signposted from the highway network and the car park layout clear so that spaces can easily be found. Site facilities and bus information must be easily available. A member of staff on site is an asset.

(ii) **Safety**- Security measures contribute to protecting vehicles from crime and make the customer more confident to leave their vehicle at a Park & Ride site, including lighting and a comprehensive CCTV system

[1] All day is calculated from 1.5 x AM + 4 x IP, based on experience in existing Park and Ride sites.

(iii) **Comfort**- The comfort of customers who have driven some distance before arriving at the site needs to be considered. Ideally waiting facilities should be inside, heated and equipped with customer information, snack and drink vending machines. Park & Ride car parks in York also provide specialist-parking bays for people with disabilities, families and larger vehicles such as camper vans.

(d) **Size** - The size of a site will depend on a number of factors including land availability and demand. However, sites that are too small (ie less than 250/300 spaces) are unlikely to be economically viable.

(e) **Charges** - In general, customers park for free and pay to travel on the bus. The bus fare is generally levied at a lower price than long stay town centre parking. This may have a negative impact on Council revenue from parking.

(f) **Funding** - Initial capital funding is required to build a facility and then ongoing revenue costs have to be met including operation of the bus service, CCTV management, lighting, maintenance and provision of information. There is no funding identified in the Second Local Transport Plan for infrastructure (which covers the period up until 2011). Currently there is no revenue stream identified to operate a park and Ride scheme and this would be an additional revenue cost to the Council. There would be limited potential to save money from the Supported Bus Services budget.

(g) **Town Centre Car Parking** – Availability of parking spaces and the cost of parking has to be carefully managed to encourage use of the Park and Ride service, whilst continuing to support town centre retail and other businesses

(h) **Bus priority** – car drivers need to believe that the bus journey from the Park and Ride site to the town centre is quicker than making the same journey by car. This can be achieved through bus priority measures such as bus lanes on key corridors, priority at junctions and access by bus into car free areas. This would be possible on North Road, but more difficult on other routes.

24. Despite the indication that the scope for Park and Ride is quite limited, the study did investigate the potential workings of a facility and two possible option were suggested:

(a) Park and Ride using existing bus services:

(i) A 'Ride' section, which could be provided by existing bus services diverted to a parking area

(ii) The provision of a safe and secure parking area

(iii) No charge for parking, passengers would pay the bus operator to use the bus. There would be zero income to Darlington Borough Council, but there would be revenue costs associated with operating and maintaining the car park. This is a lower risk option, but potentially less attractive to drivers.

(b) Park and Ride using a dedicated bus service:

(i) Darlington Borough Council would invite tenders for both the parking facility and a dedicated bus service between the parking area and town centre. This would

give more control over the level of service, charging, vehicle quality etc. This is high risk and expensive.

25. Using estimated annual usage figures and estimated costs it can be seen from Table 2 that none of the sites would generate sufficient passenger revenue to cover their operating costs, so a Park and Ride facility would need an ongoing subsidy. At this stage these figures should be treated with caution as a great deal more work would be required to analyse potential demand, risk factors and accurate costs. No work has been undertaken on potential capital costs of building a Park and Ride facility.

Table 2

Site	Estimated Annual Usage	Annual Revenue £	Bus Operating Costs £	Parking Area Costs £	Annual Subsidy Required £
A167 North Road	91,000	182,000	320,000	60,000	198,000
Little Burdon	104,000	208,000	344,000	60,000	196,000
Darlington Arena	99,000	198,000	227,000	60,000	89,000
A66 – A167 Junction	98,000	196,000	209,000	60,000	73,000
A67	64,000	128,000	338,000	60,000	270,000
A68 – A1(M) Junction	104,000	208,000	346,000	60,000	198,000

26. All the evidence to date demonstrates that the case for providing Park and Ride in Darlington is marginal.

27. There are three possible options:

    (a) Do nothing.

    (b) Explore the feasibility of implementing a trial.

    (c) Implement a scheme.

28. The option to 'do nothing' now would need to be reviewed as part of the writing of the next local transport plan, and in light of the rate of development in and around the town centre (eg Town Centre Fringe).

29. The feasibility of implementing a trial could be explored at two sites:

    (a) **Darlington Arena** - The demand modelling work has indicated that such a site could attract around 300 passengers per day, if an adequate level of service could be provided. This would need to be a service that runs between 7am and 7pm with a headway of 10minutes. There are many details and negotiations that would need to be finalised before such a trial could operate, not least, the integration and the costs of the service with the use of the Arena and its car park.

(b) **A68 – A1(M) Junction (West Auckland Road)** - The demand modelling work has indicated that such a site could attract over 300 passengers a day, if an adequate level of service could be provided. This would need to be a service that runs between 7am and 7pm with a headway of 10 minutes. At present there is no ready made facility that could serve as a trial site in this area. However, there may be opportunities with any development of the Faverdale Reserve Site, or other opportunity sites in the Faverdale West Park area, to establish a trial Park and Ride site as part of a new development.

30. The final option would be to implement a scheme. Based on the analysis to date, this would be a high risk strategy.

Outcome of Consultation

31. Park and Ride was discussed as part of the development of the Second Local Transport Plan. It is planned to take a report to the Transport Forum and LSP Greener Darlington group once it is established.

Conclusions

32. The Park and Ride Feasibility Study shows that the right conditions do not currently exist in Darlington for a successful park and ride scheme. Many trips from outside the urban area are not bound for the town centre, car parking in the town centre is not strongly constrained by supply or price, and creating further bus priority is difficult on most radial roads except North Road. All these factors make it difficult to persuade drivers to switch to a bus at the edge of the urban area in sufficient numbers. However, the conclusions of the Study can be reviewed at such time that any of the factors change.