Contents

1 *Introduction to the Case Study Report*

1.1 *The case study report*

1.1.1 This report summarise the issues arising from the case study work. It includes an overview of the case studies (below), followed by a report on each of the case studies in turn. Conclusions from the case studies and issues arising are incorporated in the Part 1 report.

1.2 *Overview of the case studies*

1.2.1 Five case studies were undertaken, one for each of five corridor types (Types A to E) identified in Stage 1 of the project. Four of the case studies (for Types A to D) are for specific existing or planned corridors. The case study of new settlements (Type E) takes the form of a generic study of issues raised by such forms of development, based on several example locations.

1.2.2 The reports on case studies A to D follow a common format examining in turn:

1 The positive lessons learnt (transport and planning);

2 Continuing or evolving issues;

3 Potential for further integration or other desirable outcomes (transport, design and processes).

1.2.3 The report on case study E necessarily follows a different format.

1.3 *The case studies selected:*

TYPE A – REGENERATION-LED CORRIDOR

Manchester - Oldham Bus and Rail Corridor

1.3.1 Historically this corridor was developed with two main public transport routes – rail and bus – which run in parallel. This corridor is Type A in the sense that it could demonstrate development (regeneration) led land use potential. There are also elements of Type B, however, since there are plans for intensification of the public transport facilities, including both bus quality partnership and inclusion of the existing rail line into the Metrolink tram

network. The case study provided opportunities for Llewelyn-Davies to provide illustrations of appropriate forms of development.

TYPE B – PUBLIC TRANSPORT – LED DEVELOPMENT

Birkenhead – Eastham, Wirral

1.3.2 The Wirral corridor was chosen after investigation of three strong contenders for Type B. (The other two were Leeds guided bus corridor, and the Belgrave Road corridor in Leicester). In each case the main outcomes to date have been in the planning of public transport improvements. None of them appeared to have followed this with major consideration of the land use intensification possibilities that improved public transport could offer. However, the Wirral corridor offered most in this respect, particularly since there are new developments which have yet to take place within it. This provided the opportunity to consider how these developments could be influenced in future.

1.3.3 The guided bus demonstration project in Leeds uses a route that does not contain significant opportunities for development intensification, except in the inner city part which in any case was thought to have similar characteristics to those being studied in the Manchester – Oldham corridor. The Leeds corridor also appeared to have problems with the before and after passenger data. The Leicester case was not pursued primarily because information on the planning process had already been collected, and nothing had yet been implemented on the ground. Wirral, like Leeds, had already seen a significant upgrading of public transport, both road based and rail. This enabled the outcomes and impacts to be investigated.

TYPE C – MAJOR PERIPHERAL EXPANSION LINKED TO TOWN CENTRE

Ipswich: Ravenswood (Airport Site) Development

1.3.4 This involves a major new development planned in relation to a new public transport route, with the form of development specifically modified on the assumption of higher than average public transport use. In addition, Ipswich already had successful bus "Superoutes" in operation, with claimed increased patronage of up to 40%. So their arguments for high levels of use to the new development are

supported by experience of these successful bus operations elsewhere in the town.

TYPE D – NEW SETTLEMENT DESIGNED AROUND PUBLIC TRANSPORT

Ebbsfleet: New Settlement

1.3.5 There were no other choices available for Type D. The only known existing UK example of a settlement planned specifically around public transport was Runcorn. The local authority did not respond, and in any case the public transport system has neither produced particularly high levels of use, nor prevented continuing decline in bus use.

1.3.6 Ebbsfleet and associated new developments in the Kent Thames-side area were expected to provide good practice examples of how to plan large scale new settlements with a focus on public transport. Given that construction of the settlement has not yet started, the case study examines the processes involved (partnership, policy, implementation etc.) and the form of the proposed settlement. It is the only case study area where mode split targets have been defined.

TYPE E NEW FREE-STANDING SETTLEMENTS

Generic Approach Involving Various Locations

1.3.7 This case study takes the form of examining issues raised by new settlements, illustrated as appropriate from a range of example locations and proposals.

2 *Manchester to Oldham*

2.1 *The case study area*

2.1.1 The Manchester to Oldham public transport corridor was selected as an example of an existing public transport corridor with significant development potential and regeneration effort being applied.

2.1.2 The transport corridor is essentially urban in character throughout, with a varied land use pattern comprising both new and old residential and industrial areas. It stretches from the Manchester city centre to Oldham town centre, passing through some areas with mixed uses, such as the district centre of Failsworth, a number of smaller communities, and a number of significant employment areas. The communities in the corridor are characterised by relatively low incomes and relatively high unemployment rates. Lower than average car ownership is a likely consequence of this pattern, and hence greater than average reliance on local public transport.

2.1.3 The corridor currently has two key pieces of transport infrastructure as follows:

- The A62 main road between Oldham and Manchester, joined at Failsworth by the A663, linking to the M62. The A62 carries frequent bus services between the two main centres, plus other more local services.
- A heavy rail route, the Oldham "Loop" Line, which connects Manchester City Centre with the edge of Oldham and Rochdale.

2.1.4 A third major piece of transport infrastructure, the M66 Manchester orbital motorway, which crosses the corridor at Hollinwood to the east of Failsworth, will be completed in 2000.

2.1.5 The Rochdale Canal also runs through the corridor following the route of the A62 from Manchester City centre before branching off at Failsworth towards Rochdale. The canal is not currently open to through traffic.

2.2 *Positive aspects of the corridor to date*

2.2.1 *Transport*

2.2.2 The corridor is the subject of significant plans to strengthen the public transport offer between Manchester and Oldham. The major

scheme is to extend the Manchester Metrolink network to Oldham (and on to Rochdale), taking over the present heavy rail route. This scheme will overcome a major shortcoming of the present rail route, namely the poor location of stations serving Oldham. The Metrolink service will provide on-street running in each of the main centres, thus giving more convenient and direct access for users. This fits well with the policy of developing vital and viable town centres.

2.2.3 It is expected also that the Metrolink will not require the subsidy that the present heavy rail service receives.

2.2.4 The Metrolink extension will raise significantly the public transport offer in the corridor, with service frequency two to three times greater than the present rail service.

2.2.5 The Greater Manchester Public Transport Executive (GMPTE) and the local authorities were successful in securing major grant funding through the Section 56 procedures and a contribution through ERDF funding based at least partly on social inclusion objectives. The Oldham-Rochdale extension is part of a package of extensions to the whole network, which will be re-franchised as a whole. The Oldham-Rochdale extension is now expected to be open by 2005.

2.2.6 The second major planned improvement is the creation of quality bus routes on the A62, through quality partnership arrangements, to improve the service quality and to install bus priority measures. This will help to achieve prominence for this corridor in terms of public transport access, and hence increase its potential for more intensive development. The infrastructure works are expected to be complete by 2005.

2.2.7 Following a period of instability after bus deregulation, First Manchester has emerged as the only operator in Oldham. There is now a close working relationship between the company and the Council, and this is having positive effects, as discussed below.

2.2.8 *Planning and integration*

2.2.9 There are locally adopted policies to encourage public transport oriented development, especially in the centres. These include policies to reduce long stay parking in the centres, and thus increase the relative attraction of commuting by public transport.

2.2.10 Oldham MBC has found in practice that it is easier to negotiate lower levels of parking in new developments that are less likely to be able to go elsewhere, such as new retail or other facilities specifically to serve the local market. The national ceiling on parking (PPG13), and the ceilings in the north west regional guidance should, however, help to ensure that all types of development respond to the call for lower levels of parking provision.

2.2.11 Oldham MBC has carried out an assessment of accessibility to public transport (similar to the PTAL method). The accessibility contours highlight the high public transport accessibility of Oldham town centre and Failsworth district centre.

2.2.12 In the planning of Metrolink, attempts have been made to locate or relocate stations between Oldham and Manchester to serve both existing and intended developments.

2.2.13 Oldham MBC have made considerable use of CPO powers to assemble sites and promote development in Oldham town centre. This has proved valuable in securing major schemes with excellent accessibility to the future on-street section of Metrolink, such as a new cultural quarter already being developed.

2.3 *Evolving and continuing issues*

2.3.1 The improved services to be offered by Metrolink are believed to help to meet social inclusion objectives by ensuring that people without a car have easy access to a wide range of jobs and facilities. A successful bid for ERDF funding was based partly on this justification. However, there may be some doubt as to the extent of this benefit. The forecasts for Metrolink usage indicate a high proportion of passengers will have transferred from existing public transport in the corridor, about three quarters of them transferring from bus. While the Metrolink on this basis would presumably those benefit transferring from bus, we have not been made aware of what the impact is likely to be on the quality of the bus services. A large proportion of people in the corridor currently rely on the bus as a relatively cheap local service. There is a danger that the loss of passengers to Metrolink could lead to poorer service frequency and quality or higher fares, or some combination of these. Such a change would act counter to the social inclusion objective.

2.3.2 Failsworth district centre is the subject of new development proposals, including the replacement of a supermarket. Although the design and layout of the scheme is not specifically oriented towards public transport use, it will mean a strengthening of the district centre status. A key objective has been to secure the re-opening of the Rochdale canal, which runs through the district centre. (See design example produced by Llewelyn-Davies.

2.3.3 The emphasis on car access will reduce the relative attraction of other modes. This may be a missed opportunity at Failsworth, but the lessons learnt could help to secure improved solutions at other locations in the corridor. Specific issues to be resolved are:

- Internal differences between planners and engineers over reduced off-street parking provision and the potential aggravation of on-street parking problems. (New parking guidance would mean a reduction from 350 to 280 spaces at the centre.) Oldham Council would welcome guidance on this issue.
- Internal differences between the planning and economic development departments over parking reductions, with the latter arguing that the maximum development value of land (as required by law) cannot be achieved if less parking is provided.

2.3.4 The largest redevelopment site in the corridor is the former Monsall Hospital site, which lies adjacent to the proposed Metrolink line. The plans are not yet fixed in terms of development interest and opportunities, nor is its relationship to Metrolink. This seems to be one of the biggest opportunities in the corridor, and there is a danger that short-term private sector interests will drive outcomes, rather than considerations of sustainable mixed-use public transport oriented development. A design example is also produced for this area, showing how an overall plan for the catchment of a new Metrolink stop could be integrated with other significant redevelopment sites adjacent to the A62 with its major bus facilities.

2.3.5 Uncertainty of Government funding for Metrolink was cleared early in 2000. This brought to an end the speculation and uncertainty, that had been holding back developer interest in the area. The greater certainty following the announcement of major Government support reduced development risks and quickly reinforced both public and private sector development activity.

2.3.6 Apart from the city centre locations, however, recent developer interest continues to be strong for car-based development at sites close to the new M60 intersection at Hollinwood, for example two drive-through take-away food outlets, a 50-bed hotel and offices. A Costco proposal is contrary to the UDP but the elected members would like to approve the scheme because of the jobs offered. Oldham MBC officers expressed a preference for offices, business and hi-tech uses (Siemens are already in the vicinity), but accept that these uses in this location would be likely to attract long distance commuting by car, and that road dependent uses like distribution centres might be better. Relative accessibility is also relevant since although Hollinwood is less well served by public transport than the town centre, it is still better than most greenfield sites. The issue of accessibility and sites available for redevelopment is being examined in a study commissioned to look at land which is derelict, unused, neglected or contaminated ("DUNC").

2.3.7 For residential development, there is the issue of land availability. At present 70% of new homes in Oldham are built on brownfield sites, but the Council believes that there may not be sufficient capacity for the projected 6,500 homes by 2016. This may mean the necessity to encroach on current Green Belt land. Reduced parking is again a source of difference between planners and engineers. On-street parking problems were reported to account for half of all complaints to the engineers' department!

2.3.8 Park and Ride funding has been included in recent S106 agreements for developments in Oldham town centre. The difficulty is that although the developer pays money to the scheme, the negotiation and risk involved in the bus service implementation are borne by the Council.

2.3.9 Travel Plans have become an increasingly important part of planning negotiations, with Oldham MBC including Travel Plan conditions in permissions for a college, a hospital and a school. But there is concern about how such conditions can be enforced over time, and guidance would be welcome on this point. Similarly, developer contributions towards accessibility are seen as needing guidance following the introduction of maximum parking standards, which remove the logic of commuted parking payments.

2.4 *Potential for further integration*

2.4.1 *Public transport development*

2.4.2 The greater certainty of Metrolink extensions has generated a great deal of activity, and there is pressure to achieve the provision of Metrolink to the commonwealth games site (near the Manchester end of the Oldham corridor).

2.4.3 The current franchise for Metrolink (held by Altram) will be bought out, and a new franchise let for the whole, enlarged, system. This re-franchising provides the opportunity to achieve extra and more integrated services. Examples of features that could be specified in the contract, subject to DETR agreement, are:

- Participation in the multi-modal ticketing and information services in the Greater Manchester area (the transport Bill enables GMPTE to compel an operator to participate in joint ticketing);
- Interchange facilities at Oldham Mumps;
- Simplification of bus routes and fares;
- Provision or operation of Park and Ride facilities, e.g. at Hollinwood (there is a precedent at Ladywell, Salford where Park and Ride is provided within the existing Altram franchise);
- Feeder bus services to Metrolink stations.

2.4.4 There is now more open consideration of "inclusive" contracts that specify such matters. However, specified additions to the contract will be included as part of the price offered, so there will need to be a balancing of service aspirations and commercial viability.

2.4.5 Bus routing in the area is very complex due to the proliferation of socially necessary journeys that are provided for. Consideration needs to be given to a simplified network of high frequency routes focused on main roads. The present system has advantages for traditional customers who rely on bus accessibility, because routes penetrate closer to their homes and destinations. But the services do not appeal to car owners or less frequent bus users. Concentration of routes provided at high frequency will be more likely to attract people away from cars, especially if integrated with Metrolink, even though average walking distances to bus stops may increase. The

current maim operator (First Group) are already examining options for route concentration.

2.4.6 Quality bus partnerships are being developed in the area, and First Group (unlike other operators) is also prepared to consider funding of infrastructure measures as well as service or vehicle improvements. First Group are already participating in Travel Plan initiates, for example the provision of services to Littlewoods mail order facility at Shaw (near Rochdale) and to council offices.

2.4.7 *Planning and design*

2.4.8 The Metrolink stops could each be the subject of design briefs for the immediate (walk-in) catchment area (a model for such planning is provided by the development of "MAX" light rail in Portland, Oregon). These set out the distinctive features for each stop in terms of the mix of land uses and character, and provide a broad design brief for new development and local access links. This would be particularly useful where there are the greatest uncertainties or range of possibilities, notably Monsall, but also Failsworth and other stops between Oldham and Manchester.

2.4.9 Similar design briefs could be prepared for the areas around bus stops (or groups of bus stops) at key locations such as the A62 at Sharp, and at Failsworth district centre, where more intensive development can be justified on the basis of high quality bus services.

2.4.10 Development briefs or "master plans" could be prepared for the area around Metrolink stations and key bus stops. These would help:

- to convey the aims of public transport oriented development to private sector development interests;
- to provide a clear vision of the form that development is required to take, and of the way this is integrated with access routes to public transport;
- to guide site assembly, CPO and other pro-active initiatives by the local authority required to facilitate development. This will especially be true if such briefs or master plans have SPG status.

2.4.11 A particular opportunity is presented in the Wernerth – Hollinwood SRB area, which straddles the A62 and includes 28,000 people. Integration of this area with Metrolink stations will be important,

and consideration is already being given to a "safe routes to stops" strategy.

2.4.12 The density and mix of developments could be related to walking times from key Metrolink and bus stops, to maximise public transport within the overall mode split. This could build on the access profile work by Oldham MBC, and a similar exercise for the Manchester portion of the corridor.

2.4.13 Efforts could be made to plan bus services to work in synergy with Metrolink, rather than in competition with it. This would include, for example:

- Reorganising bus services to provide feeder services to Metrolink stops, as was originally done for the Tyne-Wear Metro;
- Ensuring that fully interchangeable tickets are available without price penalty;
- Ensuring that bus services are not diminished following Metrolink;
- Developing a marketing and information strategy to ensure that people are aware of the new potential and possibilities offered by both modes together;
- Positive marketing of sites to developers on this basis.

2.4.14 Consideration could be given to simplifying the bus network, and making it more appealing to people who currently do not use buses. This is already being debated with the bus operator.

2.4.15 "Safe walk routes to bus stops" plans could be developed, including the provision of safe and comfortable bus stop facilities, and this could form part of the Metrolink station planning exercises that are already being specified.

2.4.16 Opportunities could be identified for restructuring local areas in relation to both rail and bus services. A prime example is the possibility of an interchange and new "urban village", including major employment around and including Sharp, in combination with the Monsall development opportunities, and nearby A62 bus corridor. Regeneration initiatives are understood to be considering such a wider integrated solution for the Monsall site.

2.4.17 The Oldham Development Plan review provides the opportunity to consider potential changes in land use allocation, to include amongst other factors the allocation of uses according to public transport accessibility.

2.4.18 ***Policy and procedures***

2.4.19 The local authorities would benefit from support at the regional level for a development framework that reduces opportunities to develop sites that cannot meet sustainable accessibility requirements. In particular, public transport accessibility would benefit from restrictions on the type of development within the new M60 corridor to land uses and activities with low person trip rates and/or high dependence on road freight.

2.4.20 Although an adequate case has been made to secure funding for public transport improvements, a more robust case highlighting the advantages of public transport orientation could help to attract developer interest.

2.4.21 "Awareness" campaigns and the encouragement of travel plans are already becoming prominent in the Area. Consideration can be given in new development to tying planning conditions or obligations to travel plan outcomes.

2.4.22 A key to achieving higher levels of public transport use in the corridor will be the implementation of the maximum parking standards shown in the draft revised PPG13, and consideration of other car restraint policies in the corridor and in competing areas. This will need reinforcement by the Regional bodies. This could include consideration of restraint of a wider range of journey types than just car commuting as at present.

2.4.23 The local authorities could seek coordinated policies with other authorities in Greater Manchester and beyond to develop a level playing field as regard parking, density, mixed use and other sustainable development components. This would tackle the problem of development migration and wasteful competition highlighted in PPG13.

3 *Wirral*

3.1 *The case study area*

3.1.1 The Wirral between Eastham and Birkenhead town centre was selected as an example of a corridor where significant improvements to public transport have been implemented. The intention was to review the extent to which public transport facilities have helped to shape development and regeneration, in line with the Type B corridor archetype (public transport led development). A conclusion of the research, however, is that there are conceptually few differences between archetypes A and B. Like the Oldham-Manchester case study area, the Wirral has significant redevelopment potential. The difference lies mainly in the timing of the public transport – land use blend. The major improvements to public transport in Manchester-Oldham are still at the planning stage whereas there is more to be seen on the ground in Wirral.

3.1.2 The Birkenhead – Eastham corridor covers the eastern part of Wirral peninsular. The corridor is defined by the River Mersey to the north east and the Green Belt to the south west. Industry has traditionally located near to the docking facilities along the Mersey and associated communities of workers have developed adjacent to them. The most famous example of this type of community is Port Sunlight village. The changing spatial and locational needs of the shipbuilding industry meant that the much of the corridor's dockside infrastructure and plant became increasingly obsolete. This structural economic change means that the area is now the focus of considerable regeneration efforts and has a number of opportunities with significant development potential.

3.1.3 The area is served by a frequent rail service. The Merseyrail line links Liverpool city centre via Birkenhead to Chester and Ellesmere Port stations. The line provides a major commuting corridor for residents by linking Wirral to Liverpool Lime Street Station via a tunnel under the Mersey.

The A41, New Chester Road, forms a spine road through the corridor from Birkenhead to Eastham. The first phase SMART bus routes use part of this road, but branch onto local roads to serve local communities and employment areas.

3.1.4 Employment uses were traditionally located down the eastern side of the corridor adjacent to the Mersey. As the traditional heavy industries declined and closed or moved away, new industries located on the same sites, and freight transport changed from water

and rail to road. Today the heavy industrial areas remain in the north and include the Cammell Laird shipyard complex. The Lairdside Regeneration initiative has created a delivery plan and using SRB funding aims to develop shipping and maritime related industry, employment and training including a Technology Park, research centre, engineering and manufacturing centres and links with the Universities. It also promotes strategic sites for development, aims to create an "urban village" at Tranmere and will improve the physical environment.

3.1.5 The development of the Wirral and Croft Business Parks further south along the corridor marks a change in industrial development pattern as they include warehousing, office and light industrial uses. The Croft Business Park includes some retail uses. This area represents the other major development opportunity within the corridor.

3.1.6 Historically Wirral developed with the industrial boom in Victorian times as heavy industries developed along the Mersey and transported their goods via the railways and Bromborough docks. Housing grew up around the factory complexes to house the workers, the most famous example of which is Port Sunlight Village associated with the Lever Bros. soap factory. As the traditional industries began to decline social housing estates were developed along the corridor and individual settlements began to merge. The enhancement of the rail service and proximity to Liverpool and Chester led to further developments of private housing for commuters on the remaining gap sites between the settlements; resulting in the urban pattern that exists today, an almost continual urban strip between Eastham and Birkenhead.

3.2 *Positive aspects of the corridor to date*

3.2.1 *Transport*

3.2.2 There is a distinction between the role of Merseyrail, used for longer journeys and into Liverpool, and bus journeys for shorter journeys and access to intermediate destinations. This is beneficial in that a wider range of journey types is catered for by public transport. Integration between the modes could be further enhanced, however.

3.2.3 Development of a new bus station using developer contributions in Birkenhead town centre has significantly raised the profile and quality of bus transport.

3.2.4 A key improvement has been the implementation of new "SMART" bus routes, creating a network of high quality routes that will be further expanded.

3.2.5 The provision of high quality fully accessible buses and interchange facilities coupled with demand management and pedestrianisation in Birkenhead fits with the policy of developing vital and viable town centres, as well as encouraging the use of public transport.

3.2.6 Traffic management and bus priority has been used at Rake to provide a high quality and apparently successful district centre.

3.2.7 The SMART bus network has increased the "presence" of public transport, which is important in attracting and retaining public transport users. The introduction of "Real Time Information" screens at key bus stops has also helped to improve the image and usefulness of the bus services.

3.2.8 Since the introduction of SMART the services have become more reliable and there has been an improvement in customer satisfaction in all areas.

3.2.9 The Quality Partnership has become an effective mechanism for securing public transport improvements in the existing areas. A good relationship exists between members and the partnership was established and became effective before the concept of 'Quality Bus Partnerships' became widely known and emulated.

3.2.10 Within the provisional Local Transport Plan, ten quality bus partnership agreements are identified for design and implementation over the next ten years.

3.2.11 *Land Use and Transport Integration*

3.2.12 Demand management is being tackled in Birkenhead Town Centre by intensifying development without proportionate increases in the provision of car parking. This gives potential impetus for people to choose public transport over the car.

3.2.13 One of the main tools used in the formation of the LTP is the 'Corridors and Centres' approach. For each identified centre and corridor, transport authorities assessed the economic, planning and land use development opportunities. This allows the selected transport schemes to directly address the major transport problems along the main movement corridors in Merseyside.

3.2.14 Merseyside developed area-wide public transport accessibility mapping, which potentially can be used to assess public transport provision within a given area as part of the targets and monitoring process. However, development and maintenance of this technique has proved difficult.

3.2.15 Although the operator of the SMART services has declined to serve the business parks at Bromborough (claiming the necessary route diversion to be not commercially viable) a conventional bus service has recently been implemented with financial subsidy. This signals a willingness on the part of the PTE and Wirral MBC to secure bus accessibility to new developments. This illustrates one advantage of the PTE structure, namely the additional negotiating strength to finance and "seed" new services in advance of demand arising from new development.

3.3 *Evolving and continuing issues*

3.3.1 *Technical and policy issues*

3.3.2 The PTE, local authority and operators are currently working to create a multi-modal integrated ticket system.

3.3.3 The Croft and Wirral International Business Parks have been developed as two separate entities. Initially they were not linked by road due to the fear of creating a rat-run for traffic through the sites. A bus service, however, now operates through the area (though not a SMART bus) and is subsidised to "demonstrate the value of the service" which it is hoped will become commercially viable in time. If rat run traffic becomes a problem, this can be resolved by the provision of a "bus-only gate". It is to be hoped that the business parks and other regeneration projects can be served eventually by high quality SMART routes (see below).

3.3.4 There are doubts about capacity of the new Birkenhead bus station to handle future increases in bus traffic, especially with the expansion of the SMART network. Its physical separation from the Merseyrail stations (including one recently opened) also limits potential for bus-rail interchange.

3.3.5 The Lairdside Regeneration area offers great potential to become a public transport orientated development, but this potential remains to be exploited.

3.3.6 Since the introduction of the SMART bus service there has been little change in frequency of service, and journey times in some cases have increased. The image and "badging" advantages of SMART bus should ideally be associated with significant service improvements.

3.3.7 Bus lanes are expected to improve bus journey times, but data show that this has not materialised. The benefits for reliability (which may potentially in any case be more important than journey times) could be quantified and advertised.

3.3.8 There has been an overall decrease in total bus patronage but an increase in early morning and evening use. The decrease is less, however, than in Merseyside as a whole. Reversing decline in bus use in Wirral remains a challenge.

3.3.9 There is an important interaction in Wirral (and Merseyside generally) between regeneration of the inner city industrial areas and the Green Belt. The revised regional planning guidance for the North West suggests that sites currently with Green Belt designation should be made available for development not for housing, but for key inward investment and commercial purposes. Such sites would be likely to compete directly with the brownfield regeneration sites in the Wirral corridor, which are almost certainly more accessible by public transport and walking and cycling than out of town greenfield sites. Although the sites are not within Wirral itself, they could thus undermine the efforts of Wirral MBC to steer development to brownfield sites, including proposals in the draft review of the UDP to draw the inner Green Belt boundary more tightly against the urban edge.

3.3.10 A further issue is the draft regional planning guidance suggestions for maximum parking standards. Merseyside authorities agree that the PPG13 maxima should serve as the overall ceiling for the north west, but feel that the lower maxima for the conurbations (as

suggested in the draft revised RPG) is too rigid a distinction. It is argued that there are parts of the conurbations that are much more akin to the less developed parts of the region. However, the RPG also expects urban authorities in the conurbations to adopt their own tougher maxima in line with higher non-car accessibility criteria.

3.3.11 *Process Issues*

3.3.12 Merseyside Strategic Transportation and Planning Committee ensures integration between the UDPs and LTP. However, the authorities recognise that more can be done to achieve integration with the regional level.

3.3.13 The LTP overriding theme is economic regeneration and job creation. The development of identified strategic sites within Merseyside is likely to result in increased transport demand. Public transport planning should aim specifically to maximise bus and rail within the overall mode split of the new developments, for example through the mechanism of Transport Assessments.

3.3.14 Attempts to shape development in relation to public transport are tempered by the need to ensure that development opportunities are taken. Job creation and retention is the highest item on the political agenda. Support at the regional level should be sought to reduce the risk of competition by other local authorities, so that development opportunities can be taken without compromising sustainable transport objectives.

"In the south east you are choking to death; here we are starving to death."

3.3.15 In relation to this point, demand management measures (parking restraint) currently are not being pursued outside Birkenhead town centre. PPG13 however requires reduced levels of parking at all locations compared to current standards, and implementation of this will require support at the regional level.

3.3.16 The major bus operator in Wirral changed in 1999 when Arriva took over from MTL. Although the PTE believe the consequences will not be serious for Wirral, within a few months of taking over, Arriva implemented changes to routes and timetables. These changes may or may not be beneficial, but they were implemented with little refernce to planning or social objectives of the local authorities or the PTE. Indeed Wirral MBC and Merseytravel can only ***assume*** that

Arriva will honour existing contracts and will carry forward Phase 2 of the SMART network (to Arrowpark hospital) and Phase 3 (to Wallasey as part of the SRB4 programme). These changes and uncertainties highlight the difficulties for local authorities and PTEs in trying to undertake long term development planning that is reliant on stable bus services.

"Large bus companies are not pro-active in seeking new routes, and are not very innovative in growing their market."

3.4 *Potential for further integration*

3.4.1 *Planning and design*

3.4.2 Design and development plans and briefs could be developed at key locations, such as the two business parks, Lairdside regeneration area, and potential call centre in Bromborough. In such locations the potential for more intensive development could be considered in conjunction with new SMART bus routes. Such plans and briefs would need to cover accessibility by walk, cycle and bus, as well as by car. In the case of the major industrial sites, rail freight can also be included.

3.4.3 There is an opportunity to develop such an exercise at the Hind Street area of potential regeneration south of Birkenhead town centre near the portal of the Mersey road tunnel. Accessibility to this area needs to be improved to allow development to take place, and an approach that considers all modes, including a new through route for buses is needed.

3.4.4 The SMART bus routes do not serve the Lairdside regeneration area (they use the Old Chester Road out of Birkenhead rather than the A41). It is possible that infrastructure could be provided to allow buses direct access through the Lairdside area (via Cambleton Road), perhaps a wholly new SMART route linking Birkenhead, Lairdside, the Technology Park, and the Bromborough business parks. As a commercial venture there would be the problem that the operator may not wish to register services to use the new route. SRB and Objective 1 money can, however, be used to seed services. Section 106 is generally considered to offer little help in Wirral because of the lack of development surplus from which to draw. The alternative scenario whereby services have to wait until new jobs

have arrived is high risk in that employees develop car use habits which may then be difficult to break.

3.4.5 The potential for buses to act as feeder services for Merseyrail could be explored further, along with other initiatives to ensure an integrated public transport system.

3.4.6 Labour-intensive companies (e.g. call centres) are showing an interest in locating in the corridor. The employees could be encouraged to use public transport from day one if a high quality and aggressively marketed public transport service is provided. Negotiation of Travel Plans as part of the planning permission will support this, especially if tied to time-specific targets for mode split. Car parking will need to be at a lower level, as indicated in the draft revision of PPG13.

3.4.7 The improved quality of public transport could be used as a positive marketing feature of development opportunities, enabling, for example, access to a wider labour market, and lower access costs in terms of road and parking provision.

3.4.8 There is scope to encourage Travel Plans and tie them to planning permissions, especially where the commercial advantage is clear. An example is provided at Lairdside where Wirral MBC has pointed out that a site for a new off-street car park proposed by Cammell Laird could be better used for productive uses if a Travel Plan was successful in reducing car use for the journey to work. The potential commercial advantage means that the costs of preparing and implementing the travel Plan should also be borne by the company concerned. The position at Cammell Laird may, however, be less than straightforward due to shift working and contract working, both of which could militate against regular commuting by public transport. (The workforce at Cammell Laird can vary between 1,000 and 2,500 staff depending on the orders in progress, and many workers will not relocate for accessibility reasons.)

3.4.9 If the development of a multi modal ticketing system continues to be delayed or reaches an impasse, the Transport Bill provides powers to ensure that operators participate in such systems. The Bill will also introduce new local powers to secure the availability of passenger information and where necessary recover the costs from the operators.

3.4.10 The corridor has potential for increased rail freight operation if suitable industrial users can be attracted to the area. This could be actively promoted, and DETR assistance sought.

3.4.11 Bus service subsidies could be provided to extend service hours into the evenings and early mornings, and to maintain service frequencies throughout. This would, however, have to be justified in relation to other calls on scarce local authority resources. The same would apply to subsidies used to provide concessionary fares, or lower fares. The latter is more likely (within the current regulatory framework) to take the form of special purpose subsidies, such as enabling the introduction of multi-mode or other integrated ticketing schemes.

3.4.12 *Policy and procedures*

3.4.13 The regeneration partnership recognises that it is necessary to involve public transport operators in the early stages of planning for new development. There is now the opportunity to provide further bus routes and infrastructure in conjunction with development of employment and other facilities at the Business Parks.

3.4.14 Progress could be made by Merseytravel in offering discounts to companies for bulk ticket or travel card purchase by companies. It is believed to be the only PTE not currently offering such discount facilities.

4 *Ipswich – Ravenswood Corridor*

4.1 *The case study area*

4.1.1 The Ravenswood public transport corridor in Ipswich was selected to investigate the characteristics of a "Type C" corridor – a town extension linked to the town centre by high quality bus services. The experience at Ravenswood is being used to inform decisions about further sites for expansion in the town.

4.1.2 The corridor stretches south east from the town centre, passing the port area and up the side of the river valley to the suburban fringe. Nacton Road and Landseer/Holy Wells Road form two main routes through the corridor. Nacton Road route carries current bus services and is heavily trafficked. Landseer Road / Holy Wells Road provide access to the port for Heavy Goods Vehicles.

4.1.3 A new extension to Ipswich is being implemented at the south eastern end of the corridor, called Ravenswood, on the former Ipswich airport site, close to the recently developed Ransomes Europark employment and retail park. These new developments and existing residential areas of Greenwich and Gainsborough estates will be served by a new "Superoute" bus service to the town centre.

4.1.4 The corridor starts to the north in the high density, medieval narrow streets of the town centre. The modern Port area is dominated by large scale, port-related industrial and distribution uses. Employment uses stretch south through the corridor on the east side of the River Orwell, to the west of Landseer Road.

4.1.5 Further east, to the north and south of Landseer Road there are typical 1930's medium density housing areas with small shopping parades with some vacant and under-used units.

4.1.6 Priory Heath industrial area is within the corridor, and comprises heavy industrial use, while the Ransomes Europark at the south eastern end of the corridor accommodates a range of industrial, distribution, retail and leisure uses. These are predominantly "large sheds" with ample car parking provision. The A14 Trunk road intersection marks the southern end of the corridor.

4.1.7 Ipswich was an early innovator with the introduction of the "Superoute" bus service concept as a demonstration project in the mid 1990s, and this was an important factor in the development concept for Ravenswood.

4.2 *Positive aspects of the corridor to date*

4.2.1 *Transport*

4.2.2 The new Superoute 33 serving Ravenswood service is to be provided by Ipswich buses, which has an arms length relationship with Ipswich Borough Council. The board is made up of council, operator and local business representatives, which ensures that all infrastructure, service and user needs are considered. Such arrangements can help in new service negotiations. The company bids for services on a commercial basis.

4.2.3 Superoute 66 had funding support from Central Government as a flagship bus project and its success enabled the further Superoutes to be developed.

4.2.4 The Superoutes have a strong visual presence and use high quality vehicles and infrastructure, trained staff and a strong brand image, all ensuring that the services are well used. Route 88 has low floor, accessible vehicles and it is assumed that the new Superoute also will use a modern fleet.

4.2.5 *Land Use and Transport Integration*

4.2.6 Demand management has been implemented in the town centre and includes limits on non-residential parking spaces and a reduction in spaces provided at new developments. The restraint area has been extended in the local plan review further into the Ravenswood corridor to include, for example, the "Wet Dock" redevelopment sites.

4.2.7 The Superoutes run between the town centre and other trip generating centres to ensure a two-way flow both off peak and on peak. The first Route 66 linked the railway station with the town centre and the major BT research facilities at Marklesham. The new Superoute follows this pattern with the Ransomes Europark as the external terminus.

4.2.8 The routes encompass residential areas and proposed residential development sites to ensure a viable patronage level that will increase as new houses are built.

4.2.9 The routes have been aggressively marketed. The new Superoute 33 is also used as a marketing tool to sell the new houses on the Ravenswood development.

4.2.10 The phasing of the housing development and the development of the Superoute have been considered together, with the bus route penetrating the Ravenswood site only when sufficient housing has been completed.

4.2.11 Through the creation of a detailed development brief for the Ravenswood site and the incorporation of the principles into the Local Plan, the quality of the development and key features (such as: increased density along the bus route; the majority of residents being within walking distance from a bus stop; a mix of uses; and restricted car access) have been ensured.

4.2.12 Both the Ransomes Retail Park extension and the Ravenswood mixed-use development had the same highway requirement through a joint legal agreement placed on them as part of their planning permissions. The developers agreed that this provided them with certainty from the outset by avoiding the lengthy S.106 negotiation process. This was possible because IBC was the landowner, which meant the land value of the site became the mechanism through which contributions from the developer were negotiated.

4.2.13 As in this case, the developer is often willing to contribute to public transport and this may cost less than making 100% provision for roads. If this means lower than usual traffic levels, this will create a better environment and therefore make the housing units easier to sell.

4.2.14 Leadership by an agency, in this case Suffolk County Council and a strong vision led to the idea being accepted.

4.2.15 The success of negotiations over Superoute 33 and Ravenswood provide a model (and experience) in tackling the proposed town extension to the north of Ipswich in combination with public transport development.

4.2.16 Due to the buoyant market, IBC are able to negotiate S.106 legal agreements to promote alternative modes to the car.

4.3 *Evolving and continuing issues*

4.3.1 *Technical and policy issues*

4.3.2 The Council intended to provide the full Superoute 33 service from the completion of the first house on the Ravenswood development. The high level of subsidy that would be required led, however, to more limited (and perhaps more realistic) aspirations for a partial service initially, and this to be routed on existing roads. (Routing through the Ravenswood site from the outset would have required the completion of the residential spine road long in advance of housing completions.) The developer will subsidise the initial service over the first 4 years, as it is phased in according to house completions. The frequency of the service will increase as more houses are occupied. The dilemma is that people in the early phases may choose not to use the restricted services and will become used to travelling by car.

4.3.3 The final development is planned to have only one car access and two bus accesses but in the early phase of development, residents will use the access that is eventually planned to be bus-only. This access point may be perceived by residents as more convenient, being closer to the town centre. This could mean potential opposition to its planned conversion to bus-only operation in later phases.

4.3.4 It is expected that the Port development will increase the number of HGV movements along the radial routes, including Landseer Road which carries the new Superoute 33. The provision of priority measures to assist buses is seen by some as a potential source of delays to commercial traffic. Port interests have led to proposals for a new east-bank link road to the A14, which would resolve this problem but at high cost.

4.3.5 Although parking standards have been reduced in the town centre to reflect proximity to transport interchanges, the parking provision within the Ravenswood development complies with the usual standards for non-central locations, and has not been reduced to reflect higher levels of bus use. The residential parking standard remains at two spaces per dwelling. Depending on the interpretation, this is higher than the 1.5 maximum set out in the new PPG3. IBC hope that developers will choose to increase density and reduce parking standards in new developments with access to

the bus corridor, but this is not supported by current Borough-wide development control standards.

4.3.6 Although there have been reported dramatic rises in patronage for the Superoutes, 69% have transferred from existing bus services. There is a similar issue with the new Superoute 33, which is likely to have an impact on patronage levels on existing services using Nacton Road. The impact of this on Nacton Road bus services (frequencies) could be an issue.

4.3.7 *Process Issues*

4.3.8 The fact that the Ipswich airport land was council-owned played a significant part in the planning process, as too did the close relationship with Ipswich buses. Further town extensions will be likely to encounter greater complexity with sites in different ownership.

4.4 *Potential for further integration*

4.4.1 *Planning and design*

4.4.2 The 100 acre development of Port-related industry is currently underway and will employ many local residents. If people working at these sites are to be encouraged to use public transport to work, it will be necessary to ensure that safe, prominent high quality pedestrian links are provided between the key employment sites and high quality bus stops on Superoute 33. Alternatively, a separate bus service should be provided to serve the employment area, for example by splitting the frequency between these areas and Landseer Road (i.e. service 33 and 33A).

4.4.3 Local facilities should be accessible by foot, bus and cycle and actively discourage car journeys. Superoute 33 will pass three existing local centres, all of which are not fully let and in need of refurbishment. This may offer the opportunity to rationalise the centres into one or two bus-oriented local centres along the new Superoute.

4.4.4 At places along the Superoute where development intensity could be increased plans or briefs could be drawn up to guide or stimulate development within the walk catchment of bus stops. Such sites

could include the rationalised local centre, the port employment sites, the Wet Dock area, as well as the Ravenswood and Ransomes areas. Such plans would include the development of safe, convenient and prominent pedestrian routes.

4.4.5 The safety of children going to schools in the area was raised as a concern. The potential of the new bus route to reduce the numbers of children being driven to school could be actively exploited. An awareness campaign (with incentives?) should be launched to encourage pupils to use the new Superoute buses. This is also relevant to the town expansion area planned for the north of the town, which will include the provision of a new school. An awareness campaign could be coupled with demand management techniques to limit parking and car access at the schools.

4.4.6 Both of the major proposals in the provisional LTP are road based (Stowmarket B115 Relief Road and South Lowestoft Relief Road). Although the road building element is much reduced compared to former plans, the emphasis towards could be shifted further towards investment in public transport, and local transport within Ipswich and other towns. The rural-urban balance could be addressed.

4.4.7 The experience of reduced car-access development at Ravenswood is likely to mean a similar approach being required at other expansion sites. The preferred direction of growth is to the north, where land is available close to the town centre retail and employment facilities. The base provision is for 1500 homes, but there is capacity in the area for 3000. The higher figure would allow greater self containment, such as higher shopping provision.

4.4.8 Although roads serving this northern corridor are relatively congested, this can be turned to advantage by promoting the use of priority bus routes. Alternative directions of growth (e.g. to the south west) would use less congested roads but equally would provide less incentive for people to use buses.

4.4.9 Developers have already come forward with plans for the northern sites that include reduced car access. However, there may be other challenges more difficult to meet than at Ravenswood:

- The intervening housing is relatively low density owner-occupied and traditionally “poor bus territory”;

- There is no counter attraction to the town centre to balance passenger flows as on the other superoutes;
- Land is in multiple ownership making developer negotiations more complex.

4.4.10 *Policy and procedures*

4.4.11 Introductory packages and initiatives could be used to encourage new residents of Ravenswood to form a habit of using the bus. This would require relatively small resources in relation to the overall package.

4.4.12 The experience of negotiating a S106 with transport contributions clear from the outset can be used at other expansion sites to increase certainty for the developer and for the public transport operator.

5 *Ebbsfleet and Kent Thames-side Corridors*

5.1 *The case study area*

5.1.1 Ebbsfleet was selected to provide an example of an entire new settlement that is based on principles of high public transport use and a smaller share of travel by car. The case study focuses on Ebbsfleet, although this should be seen within its Kent Thames-side context.

5.1.2 Kent Thames-side is concerned with the regeneration of the area to the north of the A2 Trunk road, stretching from Dartford's boundary with Greater London in the west through to the North Kent Marshes to the east of Gravesend. The area covers 28 square miles and includes the communities of Dartford, Stone, Greenhithe, Knockhall, Swanscombe, Northfleet and Gravesend, which are home to approximately 133,000 people.

5.1.3 Kent Thames-side also includes large tracts of under-utilised and previously used land along the Thames riverside and between the existing communities. The key development opportunities are known as:

- Ebbsfleet;
- Eastern Quarry;
- Swanscombe Peninsula;
- Greenhithe Waterfront; and
- Northfleet Embankment.

5.1.4 Kent Thames-side is well located on the strategic road network, with the M25 motorway and the A2 Trunk road providing easy communication with the Channel Ports and other parts Britain.

5.1.5 The main rail line is the North Kent Line, which runs into central London from the Medway Towns. Dartford and Gravesend are among the busiest commuter stations in Kent. Frequencies are good, especially from Dartford, but speeds are relatively low, especially on trains stopping at the intermediate stations at Stone Crossing, Greenhithe, Swanscombe and Northfleet. Typical journey times into central London are 38 – 45 minutes from Dartford, with journeys from Gravesend taking 10 - 14 minutes longer.

5.1.6 Approximately 80% of journeys are for commuting to central London. After a period of decline, patronage has increased in recent

years, particularly since the introduction of new 'Networker' rolling stock in 1993/4.

5.1.7 In 1991 between 10% and 13% of all journeys to work made by Dartford and Gravesend residents are by rail.

5.1.8 Arriva (formerly Kentish Bus) provide the majority of bus services in Kent Thames-side. Services focus on the provision of journeys between the surrounding urban areas and the town centres of Dartford and Gravesend. There are also links between the main towns and smaller communities in between, and for journeys beginning or ending beyond the boundary of Kent Thames-side in Bexley and the Medway Towns. The number of bus journeys in Kent Thames-side has increased with the opening of Bluewater by up to 50%. Up to 60 buses per hour arrive at Bluewater during opening times. The 1991 bus mode share for the journey to work by employed residents of Gravesham and Dartford was 8% and 4.5% respectively.

5.1.9 Dartford is a major employment centre, though its proximity to London means that many residents travel out of the Borough to work. Over the last two decades 'heavy' industry has given way to light industry, commerce and distribution. The urban areas of Gravesend and Northfleet also have a tradition of heavy industry related to the river.

5.1.10 The image of the Kent Thames-side area has recently been transformed by the arrival of Bluewater. Bluewater is a regional shopping centre of 1.7 million square feet of retail and leisure floorspace with 13,000 car parking spaces. The development is set in a 257 acre previously quarried site south of Dartford. It is of a similar size to the Lakeside regional shopping centres across the river in Thurrock, but has been developed to serve a different clientele.

5.2 *Positive aspects of the corridor to date*

5.2.1 *Transport*

5.2.2 Ebbsfleet has been established as one of three intermediate stations on the Channel Tunnel Rail Link between Kings Cross and the

Channel Tunnel. The link from Ebbsfleet to Kings Cross has still to be agreed.

5.2.3 *Land Use and Transport Integration*

5.2.4 Kent Thames-side Association (KTS Assoc) comprises all key interests, they meet regularly and have a commitment to the scheme, and yet maintain a flexible structure allowing the team to expand/contract and introducing 'new blood' as the project develops.

5.2.5 The KTS Association lobbied for the station at Ebbsfleet before producing its 'Vision' document for the area. This embodied integrated land use and transport planning before the Local Transport Plan procedure had been introduced. The 'Vision' includes public transport provision at both local and strategic scales, namely rail transport for longer journeys and commuting to London, and a "Fastrack" local public transport system, probably bus services running on priority and segregated routes.

5.2.6 Mode-split targets have been set for new development at Ebbsfleet. Trigger points will be set within the development programme at which mode share targets will need to be met before subsequent phases of development are implemented. These trigger points are expected to form part of S.106 agreements with the key developers but had not been finalised at the time of the research.

5.2.7 The Ebbsfleet outline planning permission includes generic floorspace figures for each quarter of the development. The plot ratio of each block was determined by the proximity to public transport and the interchange station. This ensures that the development will have an 'urban form and intensity' capable of sustaining the public transport network.

5.2.8 There is a need to limit car parking spaces to encourage the use of public transport from the outset, but there will not be sufficient levels of patronage to justify a high quality frequent service from day one, required to dissuade people from using their car. KTS Association have attempted to combat this by a) developing Fastrack in selective phases rather than the complete system from day one and b) including a planning condition in the Ebbsfleet planning application which controls the amount of parking.

5.2.9 Designated parking (i.e. tied to specific sites) is limited to that intended when the full public transport system is in place. Additional parking will be non-designated and will provide land for development in later phases.

5.2.10 High density residential and trip-attracting developments are focused on the public transport stations and stops, especially Ebbsfleet international station.

5.2.11 The strategy includes a comprehensive road hierarchy with pedestrian and cycle links to public transport stops and aims to ensure that all parts of the new development are within walking distance for public transport stops.

5.3 *Evolving and continuing issues*

5.3.1 *Technical and policy issues*

5.3.2 Two development areas north of the A2 (Bexleyheath Hospital and Dartford Marshes) are in the Green Belt. The general consensus, however, is that the vision for Ebbsfleet is beneficial in that the proposed higher densities reduce pressure for development in the Green Belt.

5.3.3 The concept of Ebbsfleet as a focal point for development in two public transport corridors (the north Kent line and CTRL) does not match well with developing the station as a park and ride facility with 9,000 parking spaces.

5.3.4 The parking strategy with higher ratios of provision in the initial phase allows early incoming people to become used to using their cars to get to work. There could be difficulties later on in persuading them to switch to public transport. This may mean that the public transport system will take longer to meet patronage targets and become viable.

5.3.5 The 1998 Transport Policies ands Programme gives a muted view of the parking strategy stating that it must be “responsive to pressures within the area including 13,000 free spaces at Bluewater”. This is a clear hint that ample parking at competing locations will make it

difficult to hold to an objective of reduced levels of provision at Ebbsfleet.

5.3.6 There is no mention of residential parking standards in strategy. Yet if parking restraint is not applied to residential areas it will be hard to curtail commuting out of Ebbsfleet by car, or driving to the station to commute. The mode split target may therefore prove hard to meet.

5.3.7 For the railways, £40m is being sought for 12-car Thameslink trains to Dartford and on to Gillingham, and to remove present platform constraints at Gravesend. The eventual pattern of north Kent line rail services is not decided. It is uncertain how Northfleet fits with Ebbsfleet. KTS aspires to a 10 minute frequency service between Dartford and Gravesend. But there is a conflict between providing "urban" stopping services, and the Railtrack preferred option of less stations and faster services. There are various possibilities still being debated, for example:

- Move Stone Crossing station
- Close Swanscombe station
- Or close Northfleet (only if a good Fastrack service)

5.3.8 ***Process Issues***

The difficulties of delivering the Ebbsfleet "vision" inevitably raises the issue of whether the KTS Association is an appropriate mechanism for such a major and complex scheme. There are advantages in that the developers and other members are forced to look at the bigger picture, and trust and understanding of the issues is important. But KTS is an association, not a partnership, and as a body its powers are limited. *"When it comes to the crunch the local authorities go 'back into their box' with the planning and legislative process."* Otherwise there would be a danger of being seen to be in someone's pocket.

5.3.9 A further weakness of KTS is that the public transport providers are not members. Arriva are interested in developing bus services, but not within the Association. (Member authorities must pay £20,000 and agree to basic elements.) There is a possibility of "Associate membership" for them. The Bluewater experience has encouraged thinking about ways of funding new services, but has also produced some negative experience of too much bus time.

5.3.10 Delays to the CTRL programme due to uncertainty over funding will delay the phasing of Ebbsfleet and consequently have reduced developer confidence in the scheme. The delay is considered to have resulted in considerable "blight". The whole premise of Ebbsfleet development is the deliverability of the rail link and station facilities. More specifically, the CTRL station is considered essential to:

- kick start the development process; and
- improve the actual and perceived feasibility of the Fastrack local transport system.

5.3.11 Without CTRL, the whole Ebbsfleet scheme would have to go back to the drawing board because the mode split and hence highway requirements depend on the level of PT use identified. It is not feasible to simply reduce the level of dependence on public transport because this would mean no critical mass for PT, and this would bring densities down further. Local roads would not cope with any significant development. The Eastern Quarry development would disappear, resulting in loss of housing units and thus creating unwanted pressure on greenfield and Green Belt sites.

5.3.12 The reliance on financial viability as the main criterion of local public transport provision will mean that services will come after the developments have been built. This allows car travel patterns to become established and therefore there is a risk that the patronage will not meet expectations. KTS believe that a system that is attractive but that can grow in stages could be developed but have no firm plans to overcome the funding gap that will exist.

5.3.13 The developers of Ebbsfleet have expressed concern about the length and cost of the S106 negotiation process, but delays have not been due to transport issues. *"There are no transport obligations in the draft S106 because we are not certain what we want the developers to do"* A separate S106 will be drawn up incorporating a transport strategy and consultants are working on this on behalf of the developers. The transport strategy requirement will include:

- A heads of agreement;
- A schedule of issues to be addressed; and
- A master plan for each "quarter".

5.3.14 The provision of public transport involves considerations and techniques that developers have often not encountered before.

They have raised concerns about the lack of specific guidance and assurances in relation to the delivery of public transport in relation to their scheme.

5.3.15 The developers have top date expressed interest in developing the south east quarter of Ebbsfleet (Springhead). This is a greenfield site and could be developed along more conventional lines, i.e. with less risk in terms of dependence on public transport. They have also indicated that they will not commit new work until Phase 2 of CTRL proceeds. This illustrates the problems of delivering the required high-density public transport oriented development in advance of firm commitments to public transport delivery.

5.3.16 As the development of the area unfolds there will need to be a strong commitment to ensure public transport services are delivered. It is unsure how this commitment will be maintained, due to the lack of direct local authority involvement in public transport and developer unease about over-reliance on a mode of transport which they have little influence over, or experience of.

5.3.17 Based on experience, there is likely to be a difficulty in getting the transport provider to extend their existing service beyond their traditional area of operation. For example, LT buses were concerned about extending services beyond the London boundary to Bluewater because of a fear that services could become less reliable.

5.3.18 KTS Association have established that they cannot cover the cost of all the physical and social infrastructure associated with new development. The costs associated with developing the sites are high and the land values relatively low and therefore public funds must be found to meet the shortfall at least in the short term. The proposed high densities could increase land values and thus produce some of this gap funding, but it is not clear how this process could work in practice.

5.3.19 Until the success of Ebbsfleet is known, the eventual uplift in land values is not known. Thus it is difficult to fund Fastrack Phase 1 from development, so having to bid for public money for what is, in effect "gap funding". It is difficult to persuade first developers to invest in a scheme that will benefit subsequent developers. It is not possible to claw back value from later developers to reimburse the initial developers.

5.3.20 The developers of Ebbsfleet will directly subsidise the bus services to run through the site – this will cost £175,000 over 5 years. The total developer contribution for the site is £10 million pounds, so the public transport element forms a very small element of the total. Even so, developers tend to resist contributions, so the local authorities have so far done everything by conditions. For example, subsequent development phases will not be allowed until a primary school is provided or Fastrack is operating.

5.3.21 Planning briefs will be developed for the key sites that will incorporate the principles of public transport orientated development. It is to be hoped that these principles be fixed and non-negotiable. (In Ipswich developers were told that their development would have to conform to all public transport components listed in the planning brief).

5.4 *Potential for further integration*

5.4.1 *Planning and design*

5.4.2 In Dartford a 'community of interest' between planners and developers has allowed an additional 4000 houses in the Local Plan allocation as a result of planning the development around the Fastrack system.

5.4.3 The possibility of combining a residential and non-residential parking strategy, by lowering residential parking standards. This will help to achieve the mode-split targets by deterring residents from using their car to commute to work from the outset.

5.4.4 *Policy and procedures*

5.4.5 As Lend Lease is the single land owner and therefore has a vested interest in the development being successful, could they use joint legal agreements, as at Ipswich, to secure infrastructure provision and initial bus service subsidy? This could give the developers certainty from the outset, and avoid complicated and lengthy S.106 negotiation throughout the development process.

5.4.6 As the provision of public transport rather than simply highways infrastructure is still a new concept, the KTS Association and the local authorities may need to do the work for the developer and

provide guidance that simplifies the process as much as possible. Inclusion of public transport operators in the KTS Association could help in this process.

5.4.7 Efforts could be made to persuade developers that contributing to public transport rather than highways will be cheaper and enable the sites to be developed to their maximum potential.

5.4.8 The Ebbsfleet proposals include the aim of integrating bus and train ticketing. The Transport Bill gives local authorities power to ensure that operators participate in such systems.

5.4.9 The Audit Commission is currently reviewing local authority revenue support for local transport and travel. In light of the findings the Commission for Integrated Transport will advise on how to secure best value from the public subsidy. This may identify the appropriate way of subsidising the Fastrack service.

5.4.10 A bus Quality Contract may be needed to ensure that the bus operator will extend the bus network, will provide quality vehicles and will support the marketing of the whole concept. This would provide a degree of certainty for KTS Association and therefore provide assurance for developers.

5.4.11 Could the Bluewater experience be applied again to subsidise Fastrack? The developer Lend Lease underwrote the bus operators costs to ensure consistency in service provision from the start. The developer underwrites the bus company's profits until patronage increases and the service becomes viable.

5.4.12 The Fastrack must be heavily marketed, both to developers and to future residents and tenants, and occupiers of commercial property. This will of course need the full commitment of the operator in advance.

5.4.13 KTS Association must ensure that the bus operator is involved in initial negotiations about development schemes for each site to ensure safe and convenient access to public transport stops is included.

5.4.14 Additional funding of the Fastrack scheme through PFI is not viable, as the revenues for the scheme are based on future developments and there is uncertainty about these developments taking place, therefore developers are unwilling to risk the necessary capital.

5.4.15 The transport strategy sets aside some funding for Phase 1 of Fastrack but KTS is investigating private sources to "match fund". The 'Vision' outlines how S.106 has been used to this end at Bluewater.

5.4.16 In view of the uncertainties, however, the county council (with KTS) is trying to make a case for Phase 1 of Fastrack in the Local Transport Plan on the basis of serving existing development. This will be a largely segregated route between Dartford and Greenhithe via Bluewater. (£15m with 5.5m from LTP). But there is a difficulty in demonstrating the benefits because it is basically replacing existing conventional public transport and satisfying existing demand. It will pass through existing areas with little opportunity for new development, and therefore few opportunities to obtain developer contributions.It may not be possible to justify the scheme on the basis only of avoiding congestion. It is not possible to use S56 (Transport) funding because it will not be a franchised operation.

5.4.17 Thus the problem is seen as not lack of legislation but a lack of confidence. *"The Government has to have confidence in the overall scheme: Ebbsfleet, CTRL and Fastrack".* There needs to be a mechanism whereby investment can be evaluated in relation to the development area, not just individual schemes like Phase 1 of Fastrack. The Government and regional offices could take a role here to share some of the risk and allow flexible funding criteria through the LTP. Ideally some form of "bridging" finance could be devised. The housing is easy to attract, but jobs are less certain, both require certainty on the transport side to work according to the strategy.

5.4.18 One possibility suggested to the researcher is that Development Corporation or similar powers could be used at Ebbsfleet. It has been suggested that the landowner and developers (Blue Circle and Whitecliffe) might well accept such a takeover if this produced certainty on Fastrack and CTRL.

6 *New free-standing Settlements*

6.1 *The case study area*

6.1.1

6.2 *Positive aspects of the corridor to date*

6.2.1 *Transport*

6.2.2

6.2.3 *Land Use and Transport Integration*

6.2.4

6.3 *Evolving and continuing issues*

6.3.1 *Technical and policy issues*

6.3.2

6.3.3 *Process Issues*

6.3.4

6.4 *Potential for further integration*

6.4.1 *Planning and design*

6.4.2 *Policy and procedures*

6.5 *Introduction*

6.5.1 A Type E corridor can be specified as a "Sub Regional Settlement Corridor" characterised by the development of free-standing settlements around rail stations and involving major new urban areas. A significant number of County authorities have proposals for such new settlements either included or planned for inclusion in their Structure Plans or being proposed by private sector developers (e.g. Micheldever Town in Hampshire).

6.5.2 The majority of proposals are centred on or related to existing or proposed rail stations, though some proposals simply envisage "strong" public transport, rather than specifying rail in particular.

6.6 *Overview of the research and issues*

6.6.1 The case study set out to explore the following issues:

1 An ***overview*** of new settlement proposals: What and where?

2 The ***need*** for such proposals: Are corridor settlements an appropriate way of meeting projected housing growth?

3 The ***strategy***: What is the role of corridor settlements in the overall strategy?

4 The ***evidence***: What data or studies underpin the case for corridor settlements?

5 ***Implementation*** issues: What mechanisms are available/needed to secure the land development and the public transport delivery?

6 ***Constraints*** on development: What are the issues in relation to Green Belt or other landscape and environmental constraints?

7 ***Consultation*** results: What are the sources of support and opposition?

8 ***Urban form*** choices: What are the corridor and non-corridor choices, and how do these interrelate?

6.6.2 The research for this case study consisted of three elements:

- An analysis of 1991 journey to work and rail service data for a number of existing rail corridors (issue 4 above). This was intended to show the extent to which people living in existing rail-based public transport corridors have different travel behaviour from others;

- Structured interviews with county councils to investigate key points the processes and issues involved in planning free-standing new settlements in rail corridors; and
- A review of issues for Green Belts (and other areas with development constraints). This is the subject of a separate background paper.

6.6.3 *Rail commuting nationally and regionally*

6.6.4 Nationally, rail accounts for 5% of all commuting trips. If London Underground is excluded, the figure is 3.6%. Rail accounts for 12% of total commuting distance, however, reflecting the use of rail for longer commuting journeys.

6.6.5 Outside London and south east England, rail has an insignificant share taking regions as a whole, though of course individual cities show a larger number. The overall regional rail mode shares for both journey to work and total trips are shown in Table ** .

Table 6.1 Rail share of commuting and total trips by region

REGION	% Journeys to work by rail	% All trips by rail
North East	0	0
North West	0	0.6
Yorks & Humberside	0	0
East Midlands	0	0
West Midlands	0	0
Eastern	0	1
South West	0	0

Wales	0	0
Scotland	0	0.9
South East	5.4	1.3
Greater London	27	8
All regions	**5**	**1.6**

Source: National Travel Survey 1995/97 special tabulations [0 means <0.5]

6.7 *Rail use in existing corridors*

6.7.1 Proposals for new settlements in rail corridors, focused on one or more stations, are based on the principle that this urban structure will create or enable more favourable travel patterns than alternative distributions of urban growth. To test this assumption the following areas were analysed using 1991 Census journey to work data:

1 London commuter areas (North Kent and part of Bedfordshire)

2 A provincial city (Birmingham, Lichfield line)

3 Provincial areas: Bedfordshire; East Midlands (Derby, Leicester, Nottingham); East Devon (Exeter); and Oxfordshire.

6.7.2 In each case the rail share (%) of the journey to work by employed residents was mapped at Ward level. For Oxfordshire the journey to work figures for entire county have been plotted, not only for rail, but also for the total public transport share. In addition, material was included from a survey of new residents (Headicar) and an analysis of location implications for mode share (Pharoah).

6.7.3 The following main points emerge from the Ward level analysis :

1 The proportion of commuting by rail declines with distance from the main employment centre.

2 The proportion of commuting by rail declines with distance from the railway station(s).

3 The proportion of commuting by rail is strongly associated with the size of the employment (city) centre, though the causal factors are almost certainly more diverse than simply size.

4 There are local variations (i.e. unevenness in the pattern described above). These are probably best explained by socio-economic factors, including car ownership and employment types. These variations are not strong enough to upset the broad patterns described above.[1]

6.8 *Planning proposals for new settlements*

6.8.1 This section draws together the responses from a number of County authorities whose planning officers have provided a telephone interview about their proposals for new settlements in public transport corridors. In most cases these followed earlier interviews undertaken by Ove Arup on behalf of CPRE and FOE.

6.8.2 As explained elsewhere in this report, the material for this case study is handled in terms of generic issues, rather than specific places. The use of greenfield sites, and in some cases Green Belt sites makes this form of response to the provision of new urban development particularly controversial. For this reason some responses from the interviews have been kept anonymous.

OVERVIEW: What is being proposed and where?

- New settlements are proposed ranging from around 1500 to 4500 new dwellings plus supporting facilities.
- The new settlement locations were not seen always as "corridors", since they tended to focus on a single station. This separate identity was seen as important to counter public concerns about urban sprawl or ribbon development. In ***Derbyshire***, for example, it had to be carefully explained that

[1] Variations in socio-economic characteristics are to a large extent masked at Ward level, but this is the finest level of dis-aggregation available for the 10% travel data.

the settlements would be free-standing and separate from each other. In ***Bedfordshire*** also, keeping the separate identities of villages was given as a positive quality of the Elstow new settlement, although a study of the Bletchley-Bedford corridor envisaged a linear settlement pattern.

- It was acknowledged that the public transport facility linking to the nearest major employment centre may only account for a small portion of total travel.
- The location of settlements in relation to public transport is a response to the transport agenda of reducing car dependence .
- Rail is seen (in most but not all counties) as having a greater chance of influencing travel choices than reliance on road public transport.
- Proposals are all related to public transport links with established towns and cities. They are mostly also based on existing small settlements and/or rail stations, or on vacant or underused rural brownfield sites. There are few if any completely "open green field" examples without either existing settlements or transport facilities.
- The concept and strategy is in some cases influenced by support or otherwise of the District Councils.
- In one case a rail location was rejected because of capacity limits on the road network in the area. A road corridor with surplus capacity was chosen for development instead. It was argued that "quality public transport doesn't have to be rail".

NEED: An appropriate way of meeting projected housing growth?

- In every case, corridor settlements are pursued only where it is believed that existing urban areas and peripheral extensions to them cannot accommodate the required growth, or where the constraints on so doing are too great.
- New settlements are therefore a response to forecast housing growth requirement, rather than being seen as desirable in their own right.

  "The debate is seen as 'greenfield versus greenfield', not 'greenfield versus brownfield'".

- The opportunity presented by existing rail services, or at least trackbeds (e.g. Cambridgeshire), in many cases determines the location of new settlements. But at least one county recognised that the rail contribution would be a small "add on" and that the bus would in reality supply most of the public transport.

  "Rail was seen as an opportunity, not a pre-condition".

- Larger settlements were favoured for variety of reasons, including better self-containment and better service provision. But large rural brownfield sites were rejected by some counties as unsustainable.

STRATEGY: Identifying role and specific corridors

- Counties have analysed areas using a range of criteria, not just transport. Green Belt, landscape, agriculture and other constraints are prominent.
- The role of new settlements is mostly seen as an answer to (mostly imposed) targets for housing growth.
- The role of the settlements is not always specified, but commuting to major towns or cities is expected.
- Self-containment is seen as unlikely, even where housing and jobs are balanced numerically.
- Balance in terms of local community and service provision is also not always expected to be achieved, even where it is planned.

  "There have been difficulties getting commercial facilities even on an estate of 8,000 houses"

  "The catchment of a decent food superstore is larger than the average planned new settlement."

EVIDENCE: Data and studies on transport aspects?

- A Milton Keynes study comparing peripheral growth with corridor growth concluded that in theory corridors would enable and encourage a greater non-car mode share than peripheral growth.
- Some authorities rely on 1991 census journey to work data.

- The transport case for new settlements usually relies on general assertions about better opportunities for travel by public transport.
- A view was expressed (by ***Northants***) that local data on existing travel habits even if it existed would not be helpful in determining travel habits in new settlements.
- Predictions based on existing journey to work patterns suggest a small role for rail (***Milton Keynes; Bedfordshire; Leicestershire*** Ivanhoe rail line).
- Experience from the ***Ebbsfleet*** case study suggests that new settlements based on new rail systems may be inherently difficult in terms of phasing and funding, at least while there is heavy dependence on private sector funding.
- This raises the issue of how other countries manage to develop new Light Rail settlements and town extensions, for example ***Langwasser*** New Town, near ***Nürnberg***, ***Almere*** new town and and major suburban extensions in ***Utrecht*** (Netherlands).
- There are apparently no studies of the influence of urban form on mode split or travel habits. It is mostly assumed that there are too many variables to make such an exercise feasible.

  "The intention is to get more than average public transport use".

IMPLEMENTATION: Land assembly and control around stations? Public transport delivery (operators etc)?

- Development is mostly expected to be market-led following the designation of land in Development Plans (Structure Plan followed by more detailed provision in Local Plan).
- Developers tend not to speculate on corridor-based settlements, but may take options on peripheral urban sites.

  "Developers tend to take the line of least resistance."

- Developers are concerned about the long-term certainty of the public transport provision, and will not agree contributions without it.

- County councils often find it difficult to get positive responses from public transport providers, who are criticised for their inability to take a long-term view. This is blamed on limited-period franchising and shareholder focus.
- Phasing was arranged in one case such that the new station (and contributions to it) would be included in the first phase. But in another case the station is not planned until 3 years after the start of the development. Later phases sometimes went beyond the plan period, making it difficult assure long-term public transport or service provision.
- The principle of mixed housing and development types was espoused, but was not backed by firm ideas on how to achieve it. It was acknowledged that there is a greater danger of uniformity than on urban sites.
- The quality of public transport in all cases was not specified, nor was the means of achieving it. Reference was made only to mode type (e.g. busway, guided bus, guided light transit, bus priority) and inferred notions of quality. Nowhere were frequencies, fares and integration with other networks specified in relation to the development proposals.
- Light rail aspirations had in a number of cases been dashed at early feasibility stage, reflecting the doubts about the inability of public transport systems to pick up a significant share of the travel market in small settlements.
- Rail station investment was usually seen as being dependent on a mix of public and private sources.
- There was an expectation by most counties that developer contributions would be needed to subsidise services in the short term before demand builds up. Cash flow may be a problem for developers if they are required to fund public transport "up front" before returns on their development materialise. This is particularly a problem for settlements that are entirely new, and without support from nearby existing populations. It is important that "first in" developers do not pick up the whole bill.
- Counties tend to work with the District Councils for master planning and development briefs and to sort out phasing and land release issues.

CONSTRAINTS: Green Belt, other?

- Constraints are included in the criteria used to investigate possibilities for new housing and development.
- Constraints vary from place to place but appear to be taken seriously by all local authorities. Planned breaches are considered only if no alternatives are perceived to be available. For example, East Bedfordshire has high value agricultural land, but MAF accepted that some land had to be released if DETR housing targets were to be met.
- There are cases where new settlements seen as enabling landscape remedial work (i.e. ex industrial land or rural brownfield sites, as in Bedfordshire and Derbyshire).

SUPPORT & OPPOSITION: Consultation

- Support is generally available from housing developers. There is a perception that brownfield sites are more often taken on by regional or specialist developers, whereas greenfield sites are favoured by national house builders.

  "The developer consortium said they were moving into 'settlement development' not just 'housing development'".

- In theory corridor developments requiring higher densities and lower parking might be less attractive to some developers, but this does not seem to have been tested.
- Opposition from existing residents and local environmental groups seems to be based a fear of ribbon development, and concern about the coalescence of existing settlements. A lot of local opposition is seen as "NIMBYISM", but opponents themselves usually latch on to other arguments to disguise what is basically self-interest.
- Opposition is sometimes about the need (and numbers) rather than the principle of rail corridor settlements.
- District Councils are not always actively supportive.
- County councils observed that national groups such as CPRE and FOE tend to put forward standard arguments. Several authorities commented that they were "disappointed" at the lack of awareness of the issues at the specific local level. In particular they were unimpressed by the "brownfield good; greenfield bad" mantra.

- There tended to be much more public support for settlements on previously-developed sites, especially where these are presently a blot on the landscape (e.g. ***Bedfordshire***, Elstow brickworks).

URBAN FORM CHOICES: Corridor or non-corridor?

" Too much is expected of the land use planning system, especially in meeting the target for brownfield development"

6.8.3 Authorities were asked about the impact of the rail settlement proposals on development elsewhere, and whether they would affect brownfield development or dispersed or rural development.

- All authorities argued that they planned as much as possible of the housing requirement in existing urban areas, or in peripheral extensions as a second choice. None agreed that their corridor development plans could be reduced or avoided by greater efforts to build on urban brownfield sites.
- Most counties accept that there will be windfall sites and infill development in villages and rural areas. The term "winfill" was used to refer to both! In some counties this amounts to a large part of the total housing capacity not found within existing urban areas.
- The availability of such "winfill" opportunities was not thought to undermine the possibilities for corridor settlements because the scale of sites was generally too small. However, numerically there is likely to be an interaction (i.e. if there are large "winfill" opportunities in total the demand for new settlements may to that extent be reduced). At least one county reported clamping down on "winfill" development, while others considered that there were already sufficient restraints on such development.
- The poor transport sustainability of small scale but numerous housing sites dispersed through rural areas was not highlighted as a problem. Indeed the contribution of such sites to the total housing requirement was more frequently seen as a plus.

COMPLEMENTARY & OTHER MEASURES?

6.8.4 Councils were asked about parking restraint, road charges, other fiscal measures, restraint on non-corridor development etc.

- Parking restraint was "on the agenda" in most of the counties contacted, but had been developed in only a few. This amounted to restricted PNR provision in town centres, and (in ***Northants***) a 50% upper limit in edge of centre areas. Maximum parking standards had been developed in some counties, but these were not at sub-demand levels outside town centres. Some counties with revised standards had yet to formally adopt them.
- Workplace parking charges were being considered by those authorities with larger towns and greater development pressures, but not elsewhere. None had yet resolved to use this form of restraint.
- Road user charges were not seen by any of the counties as likely in the foreseeable future.
- Minimum housing densities were included in some county proposals.
- Counties expressed a need to develop standards of service provision in relation to the scale of development.

  "Some developers argue that housing-only is better than mixed use".

6.9 *Conclusions from Type E Case Study*

6.9.1 We now return to the issues listed at the start of this case study, and briefly present conclusions based on the research components.

6.9.2 *An overview of new settlement proposals: what and where?*

6.9.3 All of the proposed new settlements were relatively small (the largest being for 4,500 houses. All of those studied were in the southern half of England, and we not aware of similar proposals in the northern half of England (except possibly Newcastle) or Wales.

6.9.4 The proposed settlements are mostly based on a station on an existing heavy rail line. By virtue of the distance between stations on such lines the settlements will tend to be physically separate from adjacent communities (as seen for example in the smaller Kent commuter towns). Even so, it is clear that the actual form of the settlements is an important issue for local people.

6.9.5 The emphasis on rail in county proposals appears to be based on three considerations:

1 Developers and property investors have more confidence in rail based public transport, since it implies much stronger long-term commitment to stable services compared to bus systems. (Rail involves heavy capital investment and services are therefore more likely to be maintained to protect an adequate revenue stream to justify the basic infrastructure costs);

2 Reliable high quality services are easier to provide on segregated public transport systems; and

3 The conventional wisdom that car owners are more likely to use rail as an alternative than bus.

6.9.6 The analysis of rail commuting suggests, however, that the contribution from rail is likely to be small outside the south east. For trip purposes other than the journey to work, the contribution from rail will be small even in the south east. This reality, which is acknowledged by some but not all counties, raises the question of whether the search for sites of new settlements should be limited to rail corridors.

6.9.7 The most important aspect of transport sustainability in new settlements will be the extent to which local public transport services can be provided at a level that will attract significant mode share. This suggests that only large new settlements will provide sufficient critical mass.

6.9.8 *The need for such proposals: Are corridor settlements an appropriate way of meeting projected housing growth?*

6.9.9 New settlements come at the end of the sequential approach to urban growth and as such require strong justification. The county proposals are in every case based on analysis which indicates that the capacity of existing urban areas will be insufficient to accommodate housing growth requirements. Work by Llewelyn-Davies[2] suggests that urban capacity assessments can often be

[2] Llewelyn-Davies for the North West Regional Association, "Exploring Urban Potential for Housing: The Manual and Toolkit", 1998.

revised upwards if different assumptions are used about development factors such as densities and parking ratios. However, the assumptions used by county and other authorities to determine their urban capacities have not been investigated in this study. Instead, this case study focuses on the implications of new settlements *given that the need for them has been established.*

6.9.10 *The strategy: What is the role of corridor settlements in the overall strategy?*

6.9.11 The new settlements proposed by the counties interviewed in most cases are expected to meet a substantial proportion of the housing growth requirements. For example in ***Bedfordshire*** the corridor settlements (including Elstow) will meet about one third of the county total.

6.9.12 The size of most proposed new settlements is, however, well below the 10,000 dwelling minimum considered necessary to ensure significant provision and use of non-car modes of travel.[3]

6.9.13 *The evidence: What data or studies underpin the case for corridor settlements?*

6.9.14 The analysis undertaken in this study shows that rail performs a small role in overall personal travel. The most significant role in terms of regular trips is for the journey to work. The rail share is significant in commuter towns within an hour or so rail travel time from central London or about 30 minutes from provincial city centres (about 10-15% of journeys by employed residents), but is fairly insignificant elsewhere.

6.9.15 In general, public transport to work by residents outside the pull of major city centres is dominated by the bus. In Oxfordshire, for example, rail accounts for a noticeable share only in parts of the county close to stations with fast (under 1 hour) services to London.

6.9.16 The data does not, of course, tell us about travel for purposes other than work. We can expect rail to have a small role for other purposes, as indicated by National Travel Survey Data. Other trips are made to more local and more diverse destinations. For example, people may shop in two or even three towns or centres, but will

[3] Ecotec and TPA for DOE/DOT, "Reducing Emissions Through Planning", HMSO, 1993.

tend to work only in one. Comparing the overall public transport share and the rail share of commuting in Oxfordshire suggests that where rail use is lower, bus use is higher, and that where rail use is higher, it does not raise the total public transport share. In other words these data suggest that the proportion of commuting by all public transport may be independent of the share performed by rail.

6.9.17 The presence of higher than average levels of rail use in "commuter towns" does not in itself confirm that new settlements built around rail stations will display similar levels of rail use. Much will depend on the type of people moving to such settlements, and their motivation for so doing. For example, rail commuting by ***new*** residents in Oxfordshire varies considerably between towns (1% in Bicester but 8% in Didcot).

6.9.18 Overall, the data do not provide strong support for the assumptions about transport sustainability on which county proposals for new settlements are based. This is not to say that the overall role of public transport could not be enhanced by the location of settlements on rail lines, but measures other than mere location would be required to achieve this outcome.

6.9.19 *Implementation issues: What mechanisms are available/needed to secure the land development and the public transport delivery?*

6.9.20 The implementation mechanisms vary according to the type of site, and land ownership. Settlements planned on sites in single ownership appear to have an advantage. For example the Elstow proposal in ***Bedfordshire*** is being progressed through a development consortium of developer and major land owner.

6.9.21 The complexity of the site can have an influence, with greenfield sites perhaps more readily attracting developer interest than sites requiring remedial work. A significant number of the new settlements included in the review included objectives of regeneration or resolving issues of contamination or despoiled landscape. Such issues necessarily tend to draw in the involvement of agencies in addition to private developers and local authorities.

6.9.22 Some new settlements simply involve the allocation of sites (or even broad "search areas") in the county structure plan, with more detailed planning left to the local plan review process. Negotiation of

public transport and other facilities may then be the subject of conditions and agreements attached to planning applications for the settlement. This is no different in principle from the implementation of smaller housing development applications, though the scale may lead to more extensive master planning and provisions for phasing and timing.

6.9.23 The delivery of public transport as an integral part of most new settlement proposals is recognised as problematic, with operators often unwilling or unable to take a long-term view, and developers unwilling to commit to development forms which depend on services that cannot be guaranteed. There are also serious problems of finance, especially if any significant reliance is made on developer contributions. The developer's return on investment inevitably will come some time after the early residents have moved in, yet public transport services need to be provided from day one.

6.9.24 ***Constraints on development: What are the issues in relation to Green Belt or other landscape and environmental constraints?***

6.9.25 We have found both positive and negative aspects of different forms of encroachment on Green Belt land. This suggests that detailed investigation of proposals on a case by case basis is more appropriate than attempting to devise rules of thumb. The main issue will be establishing the case for intrusion on the Green Belt in any form. This will depend on factors outside the remit of this study such as urban capacity and regional economic growth. If a case can be made, detailed investigation should be undertaken of the choices between peripheral extensions or free-standing settlements, and between few large or many small incursions.

6.9.26 Studies in Oxfordshire suggest that from a transport point of view (mode split and vehicle miles generated), extensions to Oxford are more sustainable than the Structure Plan policy of steering growth to four market towns. However, there is a trade-off between competing environmental objectives. The growth pole policy helps to protect the Oxford historic core and Green Belt from excessive growth, but incurs higher environmental costs from transport.

6.9.27 Where incursions are considered in concept, there is an *a priori* case for limiting their number in order to minimise the rural-urban interface, which itself takes land from rural use. There are also

considerations about maximising the positive aspects and minimising the negative impacts of any Green Belt incursions that are made. Again, these issues can only be resolved by careful study and analysis of each case.

6.9.28 *Consultation: What are the sources of support and opposition?*

6.9.29 Some of the counties had encountered opposition to proposed development in public transport corridors because of a perception that this would create "1930s style ribbon development".

6.9.30 Public support is easier to find for new settlements that will improve despoiled landscape or remove industrial dereliction, especially if the scheme includes economic as well as landscape regeneration. Otherwise, public opposition is common, both from groups representing national interests, and local individuals and groups acting out of (mostly) self interest. The latter are usually attached to wider arguments such as loss of habitat or Green Belt, rather than presented as outright "NIMBYISM".

6.9.31 Support from developers (mainly housebuilders) is relatively easy to garner from for the building of new settlements on sites with greener fields. For brownfield sites the support is more likely to come from more specialist developers and regeneration agencies.