Examination into the Joint Core Strategy for Broadland, Norwich and South Norfolk.

Matters for Examination - Supplementary Statement

Response by: Barratt Strategic

Re: Old Catton/Sprowston/Rackheath/Thorpe St Andrew growth triangle

B1 - In principle do Policy 10 and Appendix 5 (as amended) provide a sound procedural basis for the strategic allocation of the growth triangle and an appropriate level of guidance for taking its development forward in a co-ordinated way without an AAP through future detailed masterplanning of the various quarters?

1. Barratt Strategic is the developer of the proposed Eco-Community at Rackheath which will be a key element in delivering the housing targets within the Growth Triangle.

2. The Focussed Changes document had proposed to provide a framework for this development by means of a Supplementary Planning Document, guided by the Concept Statement in the amended Appendix 5. It is understood that this is not now proposed and that the planning authorities intend to revert to Policy 10 and Appendix 5 as set out in the published Joint Core Strategy. From a developer's perspective, a Supplementary Planning Document would have offered the advantage of reducing the time taken to prepare the framework. However, the procedural issues are less important than the certainty which an adopted Joint Core Strategy will give to developers of schemes across the plan area. Rackheath Eco-Community lies within the area identified in Appendix 5 and the key issues which an Area Action Plan needs to address are clearly set out in Policy 10. Irrespective of the approach to be adopted, consultation will remain an important feature in the statutory planning process and is also central to the development of the masterplan for the Rackheath Eco-Community, which is to be progressed in close co-operation with the planning authority and other key stakeholders.

B2 - Is this strategic allocation justified, effective and consistent with national policy?

3. While the strategic allocation approach proposed in the Focussed Changes document is not now being pursued, it is still worth considering the justification for the growth location identified in Policy 10 and Appendix 5, which we believe to be sound (certainly in terms of Rackheath) for the reasons set out below.

4. The Eco-Community at Rackheath was designated by the Government as one of the four Eco-towns in Annex A to the Planning Policy Statement on Eco-towns published as a supplement to Planning Policy Statement 1 in July 2009. This followed an extensive period of consultation and assessment.

5. The Eco-towns programme was established in 2007, with bids for appropriate locations and proposals being invited from the development sector. Following the withdrawal of several schemes from the programme, and inclusion of proposals for alternative schemes put forward by local authorities (including Rackheath which was preferred to the original proposal at Colitshall), a draft Planning Policy Statement (PPS) listed 11 locations, including Rackheath, that were being considered for inclusion in the eco-towns programme. The draft PPS, including the list of locations being considered for inclusion in the eco-towns programme, was subject to consultation between November 2008 and April 2009, together with the Sustainability Appraisal and Habitats Regulation Assessment for these locations.

6. In determining which of the proposed Eco-towns to designate, the government was guided by the results of the aforementioned appraisals and by the fit with the criteria and outcomes set out in the Eco-towns Prospectus of 2007.

7. The Eco-towns decision statement of July 2009 concluded in respect of Rackheath that "the location has demonstrated that it can meet the sustainability and deliverability requirements to be successfully developed as an eco-town". Rackheath was the only location to receive a Grade A designation for its sustainability credentials. One of the strengths identified was the degree of fit between the Eco-town proposal and the emerging strategy of the JCS.

8. The Rackheath element of the strategic allocation has therefore been tested and incorporated as national policy. The promoters are confident that this element of the growth triangle can be effectively delivered. This is based on the fact that the vast majority of the land is in a single ownership and development agreements are in place. Rackheath Eco-community will be delivered in partnership with Broadland District Council

and a joint venture agreement will be in place by the end of 2010 to ensure effective management of this relationship. Furthermore, DCLG has already provided over £10m support to Broadland District Council to fund projects identified in the Programme of Development which is designed to address infrastructure issues and allow early phases to be brought forward. Projects will include building some exemplar homes to demonstrate what standards of energy efficiency and affordable living can be achieved; setting aside funds to help existing residents within the Eco-Community area adapt their houses to make them more comfortable, affordable to run and have lower carbon emissions; progressing green travel plans and contributing to the development of bus rapid transport links and cycle routes; developing a sustainable water strategy; and supporting green projects to preserve and protect local wildlife raise community awareness of all that their environment has to offer. The new government has confirmed that additional funding may be made available in the next financial year.

9. All parties are therefore committed to the delivery of the Rackheath Eco-Community within the Growth Triangle.

B3 - Does the amended concept statement provide sound guidance for the development?

10. This question is no longer applicable.

B4 - In relation to the growth triangle: (1) What degree of public transport use/modal shift is aimed for? (2) What is the programme for completing the constituent elements of NATS? (3) Is there reasonable prospect of these being implemented within a timescale in step with new development, or would the NDR tend to generate more car dependency? (4) Is the relative remoteness of the ecotown from current transport infrastructure likely to militate against high public transport useage? (5) Would an effective JCS set minimum threshold levels of public transport accessibility, allied to the progress of development?

11. The strategy for delivering the reduction in car/van drivers is established in the Concept Statement for Rackheath Eco-Community and the Norwich Area Transport Strategy (NATS). NATS includes the key external infrastructure measures to Rackheath as set out below:

Bus
- Bus Rapid Transit (BRT) on Salhouse Road from development to Norwich city centre

- A bus service operating from the development to Norwich Airport, or, Demand Responsive Transport (DRT)
- Bus priority on Salhouse Road at signalised junction with Outer Ring Road
- Bus only route through Mousehold Heath in Norwich
- Revenue support for buses until northeast Norwich growth area is sufficiently developed for BRT services to be sustainable

Walking/cycling
- High quality segregated pedestrian and cycle facility along Salhouse Road
- Other pedestrian and cycle facilities to link growth areas to Salhouse Road
- Pedestrian and cycle facilities to link the development with Wroxham to the north

Rail
- Relocate Salhouse station to within the low-carbon development
- New station/halt to serve Broadland Business Park and existing housing at Dussindale Park
- Double service frequency to half hourly on North Walsham to Norwich railway line to serve the development
- Feasibility into tram-train services to serve the development

12. The masterplanning for Rackheath Eco-Community has been specifically designed to maximise the use of public transport by ensuring ease of access to these facilities in a manner that will keep these modes competitive with travel by private car. The role of the Transport Hub at the Rail Station and District Centre is key to delivery of this modal interchange element of the strategy. In addition, the development will need to be seen as a Travel Management Area (TMA) which will combine the benefits of business Travel Plans with residential Travel Plans such that not only the need to travel by car, but also the need to travel over distance, or at all, is reduced. An outline Framework Travel Plan has been produced and is attached at Appendix A.

13. The specific focus of the non-car transport strategy for Rackheath will be to deliver bus and rail (including, in the longer term, Tram-Train) services at high frequency and timetable reliability to the key external employment and retail destinations. The key locations of Norwich City Centre, Norwich Airport and Broadland Business Park are seen as the principal destinations for achieving a genuine reduction in car travel, through providing bus and rail services that compete for time, cost, convenience and journey quality.

14. These are then supplemented by improvements to the pedestrian and cycle network, initially within the Eco-Community with direct footways and

cycleways, segregated from general traffic where this provides a benefit. On the wider network, cycle routes to the centre of Norwich and Broadland Business Park are proposed, which share a common route for part of the journeys, and while it is not envisaged that people would walk to either destination, Broadland Business Park in particular, at 2.2km from Rackheath, is within cycling distance, and the facilities provided at workplaces for cyclists can be used by persons running to site as part of their travel and exercise regime.

15. A significant element of reducing car driver trips is delivered through increases in car sharing, especially with the growth in workplace Travel Plans which provide priority parking for sharers and limit access to parking. This would be actively promoted as part of the TMA, and linked to the CarShare Norfolk database.

16. The final key element of the strategy is to facilitate working and shopping from home, to reduce the need to travel at all. This is linked to the IT infrastructure to be designed in to the fabric of the buildings and the whole development ethos. It will include for future upgrading and enhancement so far as that can be foreseen, and linked to a servicing and delivery strategy that minimises the impact of these trips.

17. It is the combination of all of these measures that is proposed to deliver the reduction in car driver trips, and public transport is seen as the major contributor, delivering more than 10% increase in mode share for travel to work trips compared to the present day, as well as a significant increase in mode share for other journey purposes. As far as the Rackheath Eco-Community part of the Growth Triangle is concerned we are aiming for a 50% reduction in the percentage of travellers who are single occupancy drivers of cars or vans. We believe that this is acheivable with the implementation of the Green Travel Plan and targetted promotion (to new and potential residents and employers) of sustainable travel patterns as part of the Eco-Community ethos.

18. The NATS programme was set out as 3 five year periods covering 2011 to 2025, in the consultation booklet. This has been refined in the Draft Implementation Plan to cover specific levels of transport infrastructure provision relative to the level of housing provided. For the North East sector this also includes a number of elements that are identified as being reliant upon delivery of the NDR.

19. However, the strategy is clear that it anticipates a significant level of contribution towards the cost of implementation of elements of the strategy that are consistent with the delivery of housing. In that respect,

the content of the NATS programme for the North East Sector is consistent with the Eco-Community programme for all elements with the exception of the NDR, for which other sources of funding will be required. There are also elements of the NATS for travel and movement within Norwich City Centre that will require funding from other developments and from the Government.

20. The planning authorities indicated, in the recent consultation paper on focussed changes, that the implementation of existing planning permissions and an exemplar housing scheme (of about 200 units) at Rackheath could proceed without significant highways investment. This would enable development to commence within the Eco-Community area. Given that a detailed planning application for the exemplar scheme is unlikely to be submitted until summer 2011, it would be reasonable to assume commencement in 2012/13 rather than 2011/12 as shown in Appendix 6 to the JCS.

21. The Draft Implementation Strategy identifies the potential for 1,000 dwellings to be provided at Rackheath before the NDR is required, but it considers that the Postwick Hub junction improvements will be required to ensure that the Highways Agency do not issue an Article 14 Direction in respect of the impact on the A47 Trunk Road.

22. At this stage we consider that the fundamental case for the Postwick Hub junction improvements is strong and that the technicalities which have resulted in the need for a public inquiry should be capable of resolution in that forum. There is therefore a realistic prospect of the scheme being approved in 2011/12 which would then enable the next four years of the housing trajectory to be brought forward.

23. By that time we remain confident that the NDR will be committed and the remainder of the Eco-Community can be developed on a phased basis, in accordance with a masterplan to be agreed with the local authority and community in the context of an Area Action Plan. Throughout the whole development period, we intend to monitor travel patterns and modal split on a regular basis and to feed this in to transport assessments for individual development packages. Success in achieving significant modal shift may be used to justify higher levels/earlier delivery of housing development in consultation with the Highways Agency and local highway authority.

24. The perceived remoteness of the site from current transport infrastructure does not affect its ability to deliver a sustainable transport solution. The key is to provide a frequent and reliable service on a corridor which has a

high demand for travel, backed by control over the parking regime at the destination end of the trip and the ability to provide time and / or financial benefits over travel by car.

25. Rackheath will be able to deliver the service, and assist with delivery of priority measures to manage timetable reliability, and TMA/Travel Plan measures will provide financial benefits to encourage the uptake of bus patronage from the outset. The principal destinations being served are areas of new employment growth and the City Centre where control over parking can be exercised, and where Travel Plans will play an increasing role in employee travel, and this will assist in delivering the parking control and financial benefits.

26. The Broadland POD has allocated £2m, of the £10.2m already received from DCLG, for sustainable transport improvements related to the delivery of the Eco-Community. This includes expenditure in support of the enhancement of public transport facilities along the Salhouse Road corridor. This is a key element of the NATS and the access strategy for Rackheath, demonstrating the District Council's active support for the Eco-Community proposal.

27. It is appropriate for the JCS to set standards for access to public transport in respect of frequency of services and proportions of the travel population served by bus services. The focus of the thresholds cannot be arbitrary, such as 15 minute services once 500 houses are occupied, but must be targeted on destinations and opportunities to deliver commercial viability.

28. The use of thresholds for provision will ensure that the investment in public transport is focussed on the corridors best able to deliver the levels of bus and rail travel required for an Eco-Community.

B6 - In view of the importance seemingly ascribed to the proposed eco-town's proximity to rail services at the time of its selection as such, is there any realistic prospect of significant improvement to the low level of service and the limited number of destinations currently available on the Norwich-Cromer line, or its transformation into some other form of more attractive public transport facility?

29. The present railway service between Norwich and Sheringham offers only an hourly passenger service and cannot therefore be expected to attract a substantial proportion of trips from the proposed Rackheath development. However, the railway infrastructure passing the development is of a good

quality and double tracked and trains take only 10 minutes to reach the centre of Norwich.

30. The key to making the service more attractive is to improve frequency just between Rackheath and Norwich so that the extra capacity created is not 'wasted' by it passing northwards towards Sheringham. This can be achieved by creating a 'turnback' facility at Rackheath. A pathing (capacity) exercise has been undertaken to ensure that a more frequent service can be achieved without compromising existing services using Norwich Thorpe station.

31. National Express (the TOC) and Norfolk C.C. have in the recent past discussed the idea of a separate hourly service to North Walsham, making the service half hourly past Salhouse. Further development at Rackheath would help to make this option fundable.

32. The current service uses 3 train sets altogether to provide an hourly service from Norwich to Great Yarmouth and Lowestoft respectively, and 2 to provide an hourly service from Norfolk to Sheringham. A further set is used at peak periods, together with some support from sets normally used on Cambridge services.

33. To operate the above services along the Sheringham route and offer calls every 30 minutes at Salhouse, Rackheath and (potentially) a Broadlands Park halt would mean that trains could not round trip in 2 hours to Sheringham. On an incremental basis, the addition of a fifth set for the Sheringham Line would allow an extra 2 services per hour to be run between Norwich and Salhouse to produce a 4 times per hour frequency between Salhouse and Norwich. The existing infrastructure appears capable of accommodating an extra service to North Walsham.

34. Two potential pinch points on the local network are at Whittingham Junction and in the approach to platforms 4, 5 and 6 at Norwich.

35. At Whittingham junction, we have been able to provisionally establish that a much enhanced service on the Sheringham branch as above (4 per hour) plus a future doubling of service frequency to Lowestoft and Great Yarmouth (to 2 per hour on both routes) could all pass through this junction within the Rules of the Plan (the rules that dictate the minimum intervals between trains).

36. However, it would not be simultaneously possible to also pass these trains into and out of Norwich Thorpe station without some minor modifications. If this became a requirement, extra connections would need to be

provided within existing railway land to add to effective capacity at the station.

37. The other area of potential train conflict lies in accessing platforms 4, 5 and 6. Trains entering and exiting all pass over the same switch. To resolve this, trains would need to be able to arrive on separate tracks to those departing.

38. We believe the most cost effective approach would be to:

- Shift the crossover at the station concourse end of the 'Middle siding' to half way along platform 4 to create platforms 4a and 4b (concourse end). Each sub-platform could be 100 metres long, sufficient for 4 car trains.
- Remove the existing connection to the platform 6 track and instead use the 'gap' created by removing the switch to connect the southernmost siding in Jubilee Carriage Sidings with the platform 5 tracks.
- Reconnect the platform 6 track by redirecting the middle carriage siding to that track.

39. Platform 6 would only need to be used in exceptional circumstances. All the tracks could accommodate 4 car trains comfortably, assuming that trains were allowed to enter and stop in platform 4a when a train was (more or less simultaneously) existing platform 4b.

40. Alternatively, the eastern most track at Norwich Thorpe station could be used as the terminus for tram-trains (see below), providing a longer term potential to extend a tram train service into the centre of Norwich.

41. The development at Rackheath is intended to include an energy centre fuelled by biomass that will be transported to the site by rail. This will require new sidings that will join the main line immediately north of Rackheath station.

42. The freight branch would be signalled to allow the main line end to act as a turnaround siding for passenger trains terminating at Salhouse. Alternatively, the crossover to serve the freight siding could be located south of the Salhouse level crossing, but this may be regarded as bad practice (the level crossing could be closed for prolonged periods).

43. The freight terminal could be equipped with extra tracks, depending upon the functions it is to perform.

44. At Rackheath, 2 new platforms would be required and a bridge to meet disabled access standards. A similar bridge would not be required at Salhouse (level crossing available).

45. The proposed timetable to handle these trains would require minor adjustments to the timings (but not the pattern) of services to Great Yarmouth and Lowestoft, and a potential timetable has been designed. Allowance has been made for extra trains in the 'other' half hour to Lowestoft and Great Yarmouth to ensure these proposals do not later prejudice such an upgrade.

46. Our initial conclusion is, therefore, that the proposed development could be served by up to 4 passenger trains per hour, each train having up to 300 seats. Initially, however, 2 car trains each of 148 seats would be employed, starting with 2 trains per hour without needing to modify Norwich Thorpe station layout.

47. An option which has been given serious consideration would be to employ 'tram-trains' instead of conventional 'heavy-rail' multiple units. These have the advantage of being lighter and using less energy but still being able to 'mix' with conventional rolling stock. They are now well established in Germany and the subject of trials shortly to start in Yorkshire. They could be powered by bio-diesel. Crucially, they can perform 'street running'. For Rackheath, this would mean they could pass through the development itself with tram-train stops every few hundred metres. Infrastructure costs are low providing track is laid before roads and services.

48. A 4 times per hour tram train service would be capable of offering a peak period each way capacity of around 1,000 passengers per hour and reduce maximum walking distance to the nearest tram stop to around 400-500 metres.

49. There is, therefore, a practical means of raising local rail service frequencies to a level that would be attractive and provide a rapid transit system into the centre of Norwich, mainly using existing and underused railway infrastructure, employing technology that is already available.

50. The strategy proposed has been presented to National Express (the local rail service provider) and to Network Rail, which has agreed that it should enter an Asset Protection Agreement with Barratt Developments in order to take the project forward.

<u>B7 - What would be the consequences of a possibly unknown length of delay in provision of the NDR? Does the JCS have flexibility in this respect, bearing in mind that JCS policy 10 states that 'Delivery (of the growth triangle) is dependent on the implementation of the Northern Distributor Road (NDR)'?</u>

51. There will always be a risk associated with any scheme for which funding is not completely secured. Therefore any strategy built on that basis will have a solution that can be delivered in the absence of any key piece of infrastructure. In this instance this has not yet been developed in detail due to the hitherto strong support for the NDR that has been evident. On the basis that the NDR is not required until at least 1,000 homes have been delivered at Rackheath, according to the Draft Implementation Strategy, if there is a delay in commencement, there is time to develop and implement an interim or alternative strategy.

52. An alternative strategy would be based on the strategy for delivering the reduction in car/van drivers as established in the Concept Statement for Rackheath Eco-Community and the key external Infrastructure measures for Rackheath contained in Norwich Area Transport Strategy (NATS) (and noted in our answer to B4 above). It would be likely to be focussed on local junction improvements and sections of bus priority, as well as development of an alternative public transport strategy in terms of routes, capacities and frequencies. A public transport alternative to the NDR was identified in the Major Scheme Business Case, which could seek to deliver similar benefits to the NDR. This was not fully developed during the NDR design and assessment process, but the potential to deliver a viable alternative to the NDR was confirmed, subject to further investigation. The strategy where relevant to the Eco-Community proposal was consistent with the transport objectives identified in the Eco-Community Concept Statement.

53. In respect of the Eco-Community, the rail link would become more important, especially for modal interchange in the City Centre for onward travel around the city and to the Airport. The ability to deliver a rail solution would ensure that the JCS, in respect of the Eco-Community, is sound. A minor rewording of Policy 10 could be considered to allow for a public transport solution as an alternative to NDR, on either as a temporary or permanent basis, to ensure that an appropriate degree of flexibility in implementation is secured. This relationship would be further developed in the Action Area Plan.

<u>B8 - Are the limits/expectations in Paragraphs 44-48 of the Concept Statement at Appendix 5 (Focussed Change FC10) sound, or should growth</u>

be more or less constrained in the absence of firm commitment to/funding of a start to the NDR?

54. Paragraphs 44-48 of the Concept Statement at Appendix 5 (Focussed Change FC10) are not to be pursued. The limitations to growth which may be linked to the programming of the NDR can be fully considered in the Area Action Plan for the Growth Triangle, in consultation with the Highways Agency and the local highway authority. This will ensure a sound approach to the implementation of the Growth Triangle.

55. In addition to the transport dependencies discussed above, the key infrastructure dependencies for the Eco-Community are waste and clean water.

56. Initial studies completed for the Rackheath Concept Statement identify that the Eco-Community could proceed on the basis of either on-site treatment or upgrade of the existing Anglian Water Rackheath Waste Water Treatment Works (WwTW). The recently prepared 2010 Water Cycle Strategy (WCS) considers a regional approach to the delivery of waste water treatment which would involve use of existing and new strategic sewers to transfer flows from Rackheath and other parts of the triangle to the Belaugh and Whitlingham WwTWs. This approach would require development within the triangle to be delivered in a co-ordinated and phased manner. Although the WCS identifies dependencies between the delivery of the Eco-Community and the wider triangle area it provides a viable solution for wastewater delivery and additionally confirms that the early phasing of the Eco-Community (up to 1,986 properties) could be delivered through the existing strategic sewer network, allowing time for the development and build of the necessary new strategic sewers. All options are deliverable, and the final WwTW solution for the Eco-Community will be the subject of a viability assessment considering development delivery and phasing.

57. The WCS confirms that there is sufficient capacity within the existing water supply mains and from the existing water supply sources to meet the Eco-Community requirements. Furthermore, one of the objectives for the Eco-Community objective is to achieve Water Neutrality and as such it is proposed to meet the development water supply through the implementation of a variety of site wide measures including water efficiency, grey water recycling and rainwater harvesting. In addition consideration will be given to the possible development of the existing Ground Water abstraction to the north east of the site as an additional supply. Although there are no direct dependencies between the delivery of the Eco-Town and the wider triangle consideration will also be given to achieving water trading (i.e. offsetting water use through regional water efficiency measures).

58. Anglian Water has indicated, in recent consultations on the water cycle study for the North East Development triangle that the implementation of an exemplar housing scheme (of about 200 units) at Rackheath could proceed without significant water supply or foul water treatment investment. This would enable development to commence within the Eco-Community area.

59. The test to be applied to the provision of infrastructure does not require its delivery to be guaranteed for a strategy to rely upon it. Paragraph 4.10 of PPS 12 makes it clear that there should be "a reasonable prospect". It is clear from what is set out above that such a test is met. This also applies to the transport components of the strategy where we also believe there to be a reasonable prospect of implementation.

B10 - If the JCS is unsound in relation to the growth triangle, are there any specific changes that would render it sound?

60. It is considered that the JCS is sound in relation to the growth triangle in general and Rackheath in particular (for the reasons set out in the response to B2 above). The Inspectors' key concerns would appear to relate to the deliverability of the Growth Triangle with particular reference to the timing of the Postwick Hub and NDR and the requirements for critical infrastructure.

61. As noted in our response to B2 above, the mechanisms are in place to deliver the Rackheath Eco-Community, including a single willing landowner, a lead developer, a joint venture arrangement with the local planning authority, and DCLG funding. The relationship with NDR and the programming of the development can be addressed through the Area Action Plan process and initial studies have shown that critical infrastructure can be provided.

62. The Area Action Plan process would encompass additional consultation (which will in any event be a feature of the development of the Eco-Community) and sustainability appraisal.

APPENDIX A

RACKHEATH LOW CARBON DEVELOPMENT,

RACKHEATH, NORFOLK

FRAMEWORK TRAVEL PLAN
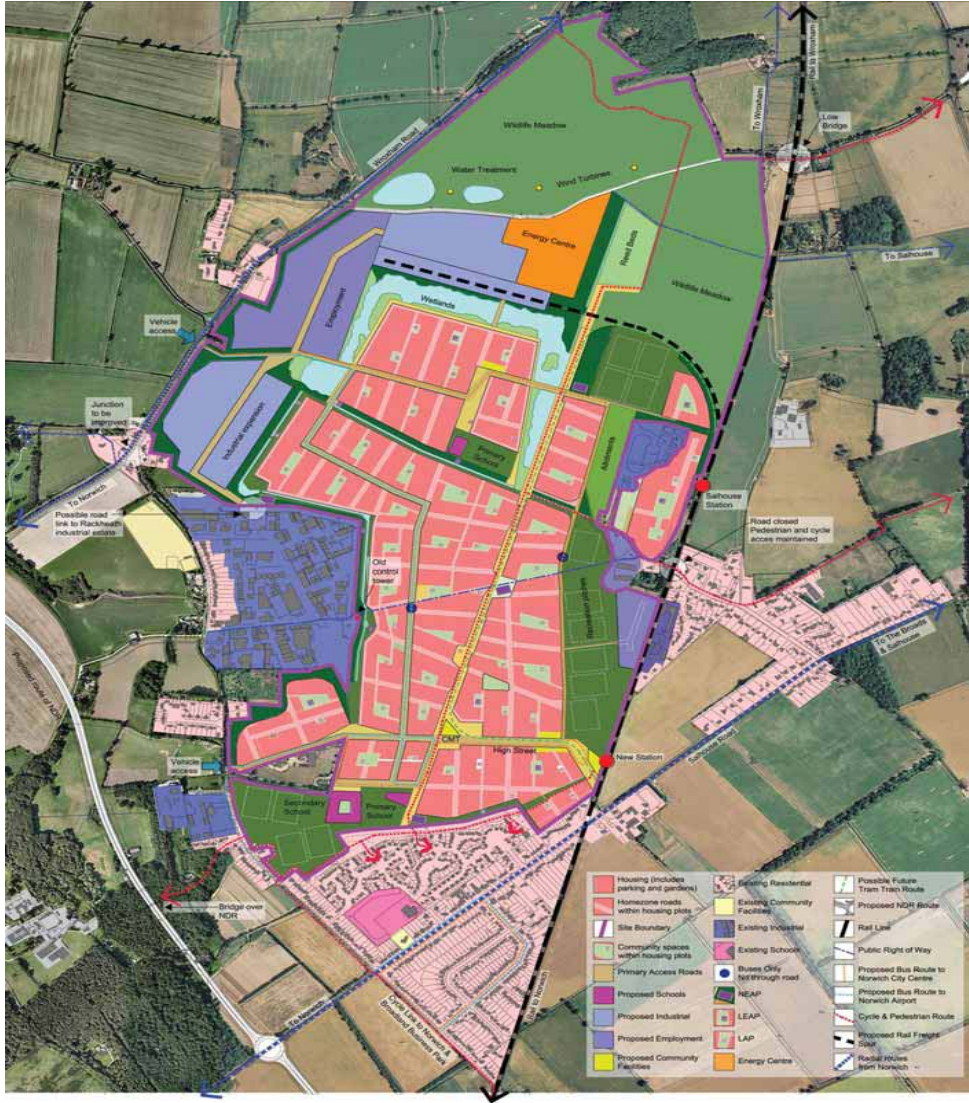
SEPTEMBER 2010

RACKHEATH LOW CARBON DEVELOPMENT, RACKHEATH, NORFOLK

FRAMEWORK TRAVEL PLAN

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SEPTEMBER 2010

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1.1   Clarke bond has been appointed by Barratt Homes to prepare a Framework Travel Plan for a Low Carbon development consisting of around 5,000 dwellings (including 870 existing), with a population of about 11,600 located at Rackheath situated about 6 km north east of Norwich city centre and on the edge of the Norwich built up area, between the Wroxham and Salhouse roads. It extends to approximately 293ha and forms part of the larger agricultural holding of Manor Farm Rackheath Ltd and lies in the administrative area of Broadland District Council and straddles the boundary between Rackheath and Salhouse parish councils, being located mainly in the former area.

1.2   This Framework Travel Plan is being drafted as part of the supporting information to demonstrate the means by which the Eco-Community travel objectives will be achieved. . As such, the Figures and Appendices that would be included in a final document have been omitted and cross references used to other submission documents, if appropriate.

1.3   This Framework Travel Plan document is a "living document" and will be further developed as the masterplan develops and in the context of the changing transport context in the Greater Norwich Area.

Rackheath Vision Statement

1.4   The vision for the Low Carbon Development is that…

> *"It should be a safe and attractive place, where people want to lay down their roots in the knowledge that they will benefit from easy access to employment, high standards of education and community support, and a diverse and healthy environment. With a low carbon footprint, the community will have low running costs and be sustainable in the long term. While located on the edge of the city, high quality public transport will provide direct access to the facilities of the regional centre. The Community should act as an exemplar for the design of other large scale development in the region and for the reconfiguration of existing settlements to meet the challenges of a low carbon future."*

2 PLANNING POLICY STATEMENT: ECO-TOWNS, A SUPPLEMENT TO PLANNING POLICY STATEMENT 1 (2009)

2.1 The PPS on eco-towns supplements PPS1, with the aim that the policies set out in it should be taken into account by regional planning bodies in the preparation of revisions to regional spatial strategies and by local planning authorities in the preparation of local development documents. The PPS sets out a range of minimum standards which are more challenging and stretching than would normally be required for new development. The standards act to ensure that eco-towns are exemplars of good practice and provide a showcase for sustainable living and allow government, business and communities to work together to develop greener, low carbon living.

2.2 The design of eco-towns should take full account of the impact on local eco-systems, mitigating negative impacts as far as possible and maximising opportunities to enhance their local environments.

2.3 Within the PPS there is guidance and requirements set in terms of transport measures, modal shifts and travel to work or school distances. There is also a willingness to support people's desire for mobility whilst achieving the goal of low carbon living and to look at the design so that access to it and through it gives priority to options such as walking, cycling, public transport and other sustainable options, thereby reducing residents' reliance on private cars. To achieve this, homes should be within ten minutes' walk of (a) frequent public transport and (b) neighbourhood services.

2.4 The provision of services within the eco-town may be co-located to reduce the need for individuals to travel by private car and encourage the efficient use of the sustainable transport options available.

2.5 In particular the PPS goes on to state that planning applications should include travel plans which demonstrate:

(a) How the town's design will enable at least 50 per cent of trips originating in eco-towns to be made by non-car means, with the potential for this to increase over time to at least 60 per cent.

(b) Good design principles, drawing from Manual for Streets, Building for Life, and community travel planning principles

(c) How transport choice messages, infrastructure and services will be provided from 'day one' of residential occupation, and

(d) How the carbon impact of transport in the eco-town will be monitored, as part of embedding a long term low-carbon approach to travel within plans for community governance.

2.6   Where an eco-town is close to an existing higher order settlement, planning applications should also demonstrate:

(a) options for ensuring that key connections around the eco-town do not become congested as a result of the development, for example by extending some aspects of the travel plan beyond the immediate boundaries of the town, and

(b) Significantly more ambitious targets for modal share than the 50 per cent (increasing to 60 per cent over time) mentioned above and for the use of sustainable transport.

3   WHAT IS A TRAVEL PLAN?

3.1   A Travel Plan is a package of measures designed to facilitate and promote travel by more sustainable modes of transport, reducing reliance on private car usage, particularly as single occupancy trips. There is also an increasing focus on the use of new technology to remove the need for travel for a range of daily needs, including working and shopping.

3.2   Travel plans can be a key tool in achieving national, regional and local objectives to manage the demand for movement and improve accessibility for everyone. The Department for Transport in its document Good Practice Guidelines: Delivering Travel Plans through the Planning Process Published in 2009 defined a Travel Plan as:

> "*A travel plan (TP) is a long-term management strategy for an occupier or site that seeks to deliver sustainable transport objectives through positive action and is articulated in a document that is regularly reviewed.*"

3.3   Travel plans are important for major new developments in order to:

- support increased choice of travel modes;

- promote and achieve access by sustainable modes;

- respond to the growing concern about the environment, congestion, pollution and poverty of access;

- Promote a partnership between the authority and the developer in creating and shaping 'place'.

3.4   Travel Plans have a set of clear objectives which underpin the purpose for having a Travel Plan. Appropriate measures are identified to help achieve the stated objectives, as well as appropriate monitoring and marketing techniques. A robust Travel Plan has a significant role in reducing the transport impacts of a development, though critical to its success is the commitment of the developer, local authority and other interested parties to ensuring its implementation and progress.

3.5   For large mixed-use developments with multiple occupants or mixed uses a Framework Travel Plan should be adopted. The Plan should:

- Ensures that the overall outcomes, targets and indicators are joined and administered centrally.

- Set the parameters for the individual uses/elements that should prepare their own subsidiary travel plans which are in line with the framework travel plan

3.6   A Framework Travel Plan such as this sets out the principles of the measures that may be introduced across a range of land uses within the whole Eco-Community.

3.7   Individual Travel Plans are site specific and tailored to the individual requirements of the type and nature of the development and occupiers of a site. Across a whole Eco-Community these individual Travel Plans need to be complimentary and focussed on a common set of objectives and initiatives to ensure success of the overall transport strategy.

3.8   Travel plans need to be seen as 'living documents'. To stay relevant, and remain effective, they need to be regularly updated as part of an ongoing monitor and manage process.

3.9   The setting of targets is crucial for all parties to monitor the travel plan and ensure it is meeting the desired outcomes. To be effective, the number of targets will be small, and they will conform with the SMART principles (Specific, Measureable, Achievable, Realistic, Time Bounded). The targets may be achieved through a range of different measures that may be amended over time. Following implementation, regular monitoring of the targets and indicators will inform parties of the progress made by the travel plan. To ensure follow-up, the travel plan needs to detail a monitoring, management and remediation strategy, which includes timescales and actions, responsibilities and funding sources. The focus of each target will link to the outcomes sought, the nature of the Use Class(es), and the location of the specific site.

4   SITE LOCATION AND MASTERPLANNING PRINCIPLES

Site Location

4.1   The proposed development is located at Rackheath which is approximately 6km north east of Norwich City Centre. The site which will contain the new elements of the community extends to approximately 293ha and forms part of the larger agricultural holding of Manor Farm Rackheath Ltd.

4.2   The boundaries of the site are broadly defined by:

- Wroxham Road to the North West;

- Blocks of woodland around Bear's Grove to the north;

- The Norwich-Wroxham railway to the east;

- Green Lane West to the west.

Masterplanning Principles

4.3   It is intended that the existing settlement at Station Road, Rackheath, which lies to the west of the railway and immediately abuts the site, will be integrated with the new community. The employment site at Rackheath Industrial Estate will also become part of the Eco-Community.

4.4   The planning of the community has taken into account the potential for future expansion to meet the overall target for 10,000 additional homes in the North East Sector of Norwich by 2031, discussed in the Joint Core Strategy.

4.5   In the expectation that development proposals will be brought forward for some of the land between the proposed Northern Distributor Road and the main urban area of Norwich. The proposals for the Eco-Community have been designed to ensure that future developments can be integrated successfully.

## 5   DEVELOPMENT PROPOSALS

Development Proposals

5.1   The proposed development is intended to integrate the new development with the existing pockets of settlement around the site, to form a distinctive new community characterised by its residents' commitment to a low carbon lifestyle. A stimulus for such commitment will be the ready availability of low cost, frequent, time reliable, and conveniently accessible public transport facilities, supplemented by the provision of high-quality links for pedestrians and cyclists, delivering a community that facilitates all internal movement needs by non-car modes. The internal transport infrastructure is therefore designed to provide for use of the private car, but to do so in such a manner that walking, cycling and buses represent an attractive and viable alterative.

5.2   The Eco-Community will consist of around 5,000 dwellings (including 870 existing), with a population of about 11,600. In the interests of ensuring a tightly knit and efficiently serviced community, the new residential accommodation is to be grouped together rather than dispersed, filling the centre of the site area rather than spread around its edges, and contained, rather than penetrated, by the key transport infrastructure. The green infrastructure and biodiversity corridors will act as internal buffer zones between residential and other uses as well as providing amenity space close to the residential areas.

5.3   The Masterplan is driven by a concern to establish a clear visual identity for the Eco-Community – both as a whole (characterised by the mixture of home zone routes and biodiversity corridors within the development) and in its separate parts (with distinctive community facilities and/or landmarks located at focal points).

5.4   In order to make it more robust in the face of possible future developments in terms of public transport, the Masterplan layout has been arranged to permit the integration of a low-speed train-tram system into the Eco-Community.

Key Buildings

5.5   The Eco-Community will feature three key buildings, each associated with a distinctive aspect of the settlement's rationale:

- The energy centre; located at the northern end of the site where it can be served by a rail spur. It also sits at the end of the former runway, the alignment of which is to be developed into a central utilities and pedestrian/cycle spine running the entire length of the settlement;

- The transport hub; based around the new station at Rackheath and will combine bus and train waiting areas with adjoining covered, secure cycle-parking facilities and catering facilities. It will form a focal point at one end of the axis along which commercial, community and social facilities are to be concentrated;

- The Community Trust building; the premises from which the Community Trust will promote and facilitate the principles and practice of low carbon living. It will contain both the management offices and the 'forum' in which inhabitants of the community (both new and existing residents) will be enabled to involve themselves in the governance of the community. Other facilities to be accommodated within the building include a doctors' surgery, a library, offices (including the travel plan coordinator) and meeting rooms for community and voluntary groups. The Community Trust building is situated at the intersection of the two main axes – the east-west 'high street' with the transport hub at the other end, and the north-south pedestrian/services spine connecting one end of the community to the other.

5.6   The two key buildings at the south end of the proposed Eco- Community (the transport hub and the Community Trust building) are deliberately separated from one another and located at either end of a 'high street' containing retail and commercial outlets of an appropriate scale for a district centre, apartments will be developed on upper floors above the retail and commercial units, aimed particularly at people who do not own cars. To reinforce its social function, the 'high street' will be developed in the form of a boulevard, with open space along the middle allowing buses to pass on both sides.
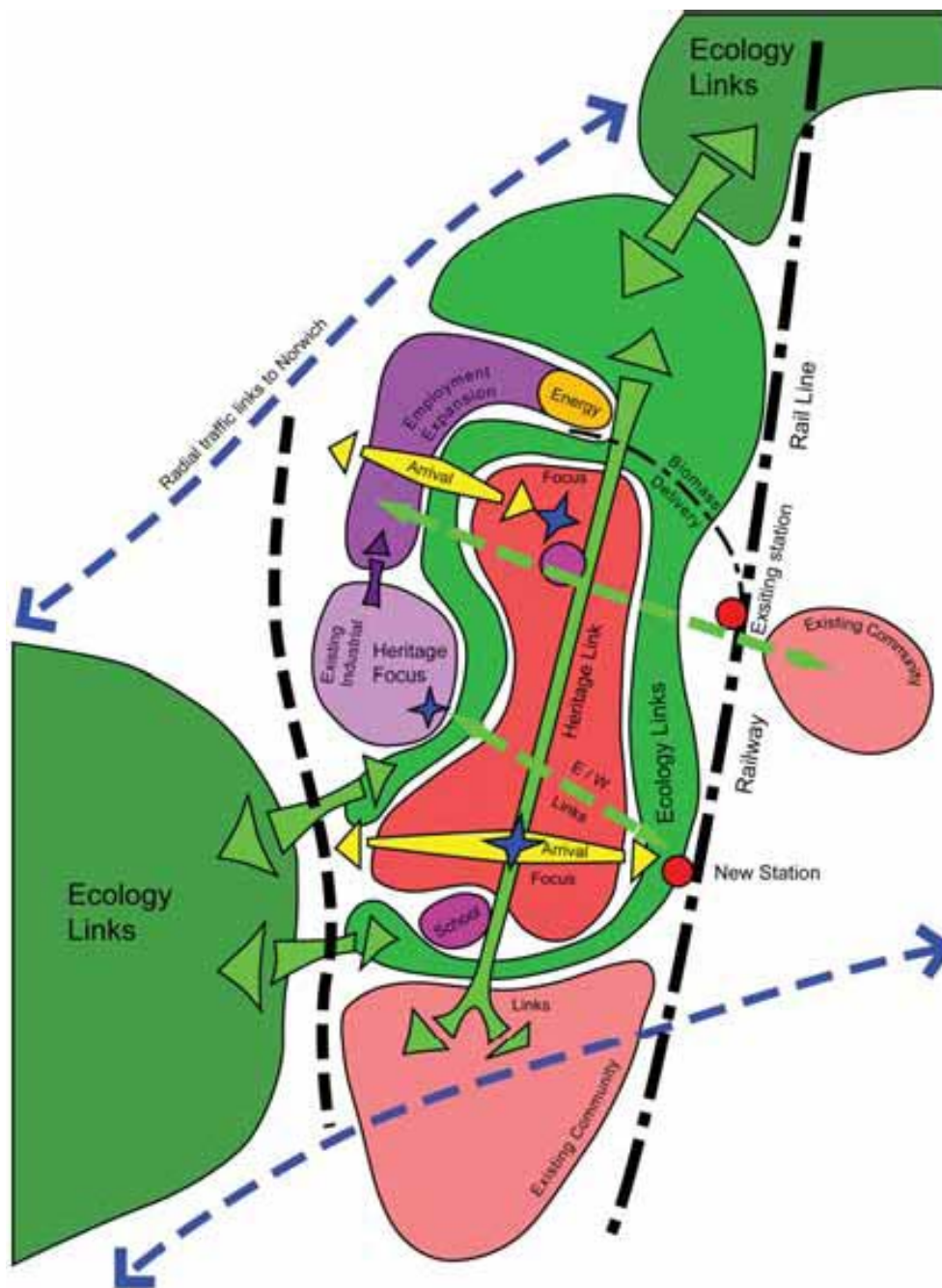
Employment

5.7   Employment uses are mainly located in the north and north west of the site where they can make efficient use of heat from the Energy Centre and have direct access to Wroxham Road.

Service vehicles seeking to access these areas will not then need to pass through the residential areas. Some employment uses will also benefit from the presence of the rail spur.

Schools

5.8   New primary schools are included, one in the northern part of the development and one towards the south, so that their catchments are based on easy walking distance from residential areas as reflected in the PPS standard. The southern site will feature an evolving education campus which will contain provision for secondary education, which will be delivered in agreement with the Authorities once a 'critical mass' of pupils has been achieved. This expanded facility will also be designed to serve development elsewhere in the North East Sector and is therefore located close to the main access to the Eco-Community and to a potential cycle route across the Northern Distributor Road.

Identity

5.9   The Eco-Community's identity is to be stimulated initially by providing a strong sense of 'arrival' at each of the points of entry into the development – by road off Green Lane West to the south and off Wroxham Road (A1151) to the north, by rail via the new transport hub or by the network of pedestrian and cycle routes converging on the Community Trust building. The aim is that both the transport hub and the Community Trust building should become desirable meeting-points for both residents and visitors in particular, serving as social destinations for those living in New Rackheath and the other existing outlying settlements. To the east of the site, the existing Salhouse Station neighbourhood will be developed separately as a mixture of new housing and further employment-related facilities.

Secondary Network

5.10   A network of subsidiary pedestrian, cycle and vehicular routes will complement the two main axes of the settlement. A variety of pedestrian and cycle links criss-crossing the development will be created, each passing through spaces with different character in terms of surface texture, enclosure and function, and constantly orientated in relation to architectural or sculptural landmark features located at critical junctions in the layout, but remaining on the travel desire line.

5.11   All the homezone areas between perimeter blocks will be limited to 10mph in order to give priority to pedestrians and cyclists, while a bus loop around the residential cores (located so

that all dwellings have a bus-stop within 300m) will have a 30mph speed limit. This is an extension of the principle already explored in Norfolk for the Nar-Ouse Regeneration Area, Kings Lynn. The pedestrian paths and cycle-ways will extend also into the surrounding landscape, encouraging their use as both practical and recreational facilities.

6   TRAVEL PLAN OBJECTIVES

Travel Plan Objectives

6.1   The main objectives of the Transport Strategy underpinning this Framework Travel Plan have been identified as follows:

- To reduce the need to travel by providing a range of employment opportunities and community facilities close to where people live and to provide non-car modes of travel to other major employment areas in and around Norwich;

- to promote the use of public transport by providing high quality, frequent bus services to key locations in Greater Norwich and enhanced rail services;

- To encourage more active modes of travel - cycling and walking;

- To minimise car use and reduce the proportion of persons travelling by single occupancy vehicles to 50% of the current levels of mode share for the area;

- To implement comprehensive travel planning, including a range of incentives to encourage the use of non-car modes.

6.2   These headline objectives provide the basis for the key targets for the ongoing assessment of the success of the Transport Strategy and thereby the Travel Plan. To supplement delivery of the targets it is possible to identify the following sub-objectives, which will themselves form the basis of a range of targets once the baseline travel data is confirmed:

- To achieve and maintain annual increases in the use of public transport, walking, cycling and car sharing;

- To reduce the impact of the movement of goods and freight on the site and surrounding highway network;

7 LOCAL TRANSPORT POLICIES

Local Transport Policies

7.1   Local transport policies are set out in the Norwich Area Transportation Strategy, which forms part of the Norfolk Local Transport Plan, setting out the focus of transport policies for the Norwich Area in the period to 2021. It has been designed to help deliver the growth that will happen within the Norwich Area and address transport problems, such as congestion. Its vision is:

> "To provide the highest possible level of access to and within the strategy
> area to benefit people's individual needs and enhance the economic health
> of the strategy area. To ensure that journeys minimise any adverse impact
> on people and the built and natural environment."

7.2   The strategy promotes travel choice, recognising the need to maintain the economic health of the Norwich Area, and carries forward the previous policy of accommodating the growth in number of trips by means other than the car, particularly through the development of High Quality Public Transport. Proposed measures include:

- Improving facilities for walking and cycling, concentrating on the core networks;

- Improving public transport routes, information, frequency and reliability, with target levels of service for different areas;

- Concentrating bus priority improvements on the core bus network;

- Providing new or improved orbital bus services and improved interchange with radial bus services;

- Expansion of, or additions to, Park and Ride sites;

- Providing access for everyone through appropriately designed infrastructure and promoting buses with access for people with disabilities

- Improved ticketing arrangements and dissemination of public transport information, making use of modern technology.

7.3   In part, this strategy is being implemented through the 'Joint Investment Plan', which is a

voluntary agreement with operators to make improvements in bus services. An investment by the operators in new vehicles and driver training is being complemented by County Council investment in infrastructure improvements, such as bus priority schemes, CCTV, customer information and traffic detection technology to improve service reliability.

7.4   Local transport policy for the area is still evolving and the consortium of local councils forming the Greater Norwich Development Partnership (GNDP) is currently bringing forward its Joint Core Strategy for the area. This will have implications for transport policy and provision. The Eco- Community proposals will be fully integrated with the policies and aspirations of local transport strategies and policies and will facilitate the implementation of walking, cycling and public transport schemes.

7.5   The GNDP has produced a Norwich Area Transport Study (NATS) and an associated implementation Plan which seeks to deliver improvements like:

- A bus rapid transit (BRT) network;

- Improvements to a core bus network as well as integrated and innovative ticketing and improved travel information;

- City centre improvements;

- A package of cycling and walking improvements, which include new crossings, increased levels of priority, cycle parking, contra-flow cycle lanes and development of core walking and cycle networks;

- Specific rail service improvements, which include increased levels of service, greater capacity, improved journey times and additional stations;

- Smarter Choices initiatives, like travel planning; and

- The Northern Distributor Road (NDR)

7.6   The GNDP are currently developing a public transport implementation plan for the Rackheath low-carbon development to set out costed proposals for the phased development of public transport in line with housing growth. Aided by the existing masterplan, showing the internal layout and relationship with existing transport infrastructure. They propose that Demand Responsive Transport (DRT) will be provided in the early stages of development, ensuring sustainable public transport options are available, but this will evolve into conventional bus services as demand grows through increased occupation of dwellings. Improvements for

cyclists along Salhouse Road to serve the exemplar phase of the low-carbon development, and become a "superhighway" to serve the full low-carbon development when it is completed.

8   SITE ASSESSMENT

Overview

8.1   The existing community of Rackheath is served by both road and rail transport. To the west, the site is bounded by the A1151 Wroxham Road and to the east by the Norwich – Sheringham rail line. To the south, the site is bounded in part by Green Lane West (an unclassified road).

Highway network

8.2   Wroxham Road (A1151) carries traffic between the outer suburbs of Norwich and Wroxham and also provides easy access to the towns and villages of north east Norfolk. The A1151 is also a holiday route for visitors to the Broads National Park.

8.3   Salhouse Road (to the east of the site) carries traffic from the B1140 at Salhouse into the north western suburbs of Norwich passing the hamlet of Thorpe End as it runs between Rackheath and the outer fringe of Norwich. Beyond Salhouse, access is available to many of the villages on the south bank of the River Bure.

8.4   Green Lane runs mainly through open countryside between Great Plumstead and Wroxham Road. To the east of Salhouse Road it is known as Green Lane East and to the west as Green Lane West. Green Lane East crosses the railway via a level crossing.

8.5   Two minor roads cross the site. Muck Lane runs between Wroxham Road and Salhouse Station while Stonehouse Road provides a link between Wroxham Road and Bell Lane. Both pass beneath the railway with height restrictions at the bridges. Both are of limited width and provide for local access only.

8.6   Norfolk County Council is currently promoting the NDR which would link the A1067 Fakenham Road at Attlebridge to the A47 at Postwick. The route is planned to be single carriageway between A1067 and Fir Covert Road and then dual carriageway for the rest of its length. The road would have roundabout junctions with Wroxham and Salhouse Roads and a further junction with Norwich Road at Thorpe End. The planned Northern Distributor Road is not regarded as a significant constraint as it lies to the south of the development site, however it will impact on connectivity with urban extensions planned to the south-west.

Bus Services

8.7   There are two bus routes serving Rackheath along the Salhouse Road. Route 54 runs from Stalham to Norwich via Horning, Wroxham and Salhouse at approximately hourly intervals (54B from Wroxham after 19.00). This service is operated by First Eastern. This service provides direct access to stops close to Sainsbury's and the Broadland Business Park, and well as the Rail Station, City Centre and Norfolk and Norwich Hospital.

8.8   Service 123 is operated by Anglian Bus and runs between Hoveton and Norwich, via Rackheath. This service runs at half hourly intervals and serves the same destinations as the Service 54 as far as the City Centre, where it terminates.

8.9   The 36 and 36X service operates along Wroxham Road serving Potter Heigham, Stalham, Wroxham and Norwich. This service runs five times in each direction per weekday with services particularly arranged around school and college times. Service 731 links Rackheath to the Great Yarmouth and East Norfolk sixth form colleges.

Rail Services

8.10   The Rackheath area is also served by a rail service operated by National Express – The Bittern Line – from a station at Salhouse. This service runs from Sheringham to Norwich seven days per week. From Monday to Friday, the service runs at approximately hourly intervals from 06.38 to 09.11. Between 09.11 and 20.34, the service operates at approximately two hourly intervals with further trains at 20.34, 21.38 and a last train at 23.02. On Sundays, the service operates at two hourly intervals throughout the day between 10.29 and 22.29.

8.11   The railway line also accommodates a daily freight train of gas condensate from North Walsham.

8.12   The railway line presents a physical barrier, restricting access to the east to a few designated crossing-points. In particular, both Stonehouse Road and Station Road in Salhouse terminate in low bridges beneath the railway which are not passable by larger vehicles. The layout and use of the road and cycleway/footpath network associated with the proposed development has therefore been planned to take these restrictions into account. The proposed railway branch-line along the northern edge of the built-up area will require safe crossing-points so as to control public access to the more ecologically sensitive part of the development site.

Cycle Network and Facilities

8.13   The Institution of Highways and Transportation (IHT) state that three quarters of journeys by all modes are less than five miles and half are less than two miles. These are distances that can be cycled comfortably by a reasonably fit person.

8.14   Additionally, Planning Policy Guidance Note 13 (PPG13) states that cycling offers the potential to substitute for short car trips, particularly those less than 5 kilometres.

8.15   There are no cycleways in the area and only a single bridleway, which runs north from Stonehouse road, close to the railway. The public footpath network in the area is limited with only two routes crossing the site of the eco-community – between Salhouse station and Rackheath industrial estate and between Salhouse church and Stonehouse road.

Pedestrian Facilities

8.16   Appropriate walking distances will vary considerably depending on various factors such as fitness and topography; however guidelines provided by the Institution of Highways and Transportation (IHT) identify the preferred maximum walking distance as being approximately 1,200m for general facilities extending to 2,000m for education and commuting journeys. Planning Policy Guidance Note 13 also identifies this 2,000m distance as being that below which walking is likely to be considered as the main alternative to driving.

9   RACKHEATH TRANSPORT STRATEGY

9.1   The basis of the proposals put forward for the Rackheath eco-community is a carbon budget strategy essentially, each household pledges to manage their total carbon use (heating, lighting, travel etc.) Below the level defined for their particular circumstances. To assist residents to do this, a comprehensive package of alternative travel modes is proposed.

9.2   The PPS for eco-towns identifies that the basic aim of the transport proposals should be to enable at least 50 per cent of trips originating in eco-towns to be made by non-car means. The Rackheath scheme focuses on achieving a reduction in the use of single occupancy vehicles as these are the most environmentally damaging.

9.3   The average car occupancy for the East Anglian area, as extracted from the TRICS residential database is 1.4 persons. This indicates that on average approximately 65% of all vehicles will have only one occupant.

9.4   Reference to the multi modal travel surveys included in the TRICS database shows that there are currently 38% of travellers in the Rackheath area travelling as the driver of a car or van. Of this 38%, 24.7% of all trips are single occupancy cars.

9.5   The aim of the transport strategy will be to reduce the 38% to 25.7% of all travel originating within the Eco-Community. This is unlikely to be achieved by transfer to a single other mode of travel or a single journey purpose, and therefore a package of measures targeting the most appropriate mode for a particular journey will be provided.

9.6   For travel to everyday services and facilities, excluding work destinations, this will be achieved through the design principles which the Eco-Community will follow. This will encourage walking and cycling for local trips, as well as the use of the new public transport network to travel external destinations, such as Norwich City Centre and Norwich and Norfolk Hospital.

9.7   Three major destinations (Broadland Business Park, Airport Industrial Estate and Norwich City Centre) are identified for employment purposes external to the eco-community and the transport strategy for external trips has been focussed on these destinations. This commuting has been identified as the major source of travel, even when the aim of reducing reliance on external sources of employment has been taken into account. The target modal splits and the means of achieving this are described in the following paragraphs.

Working from Home

9.8   The new housing will be equipped with the necessary infrastructure to encourage home working, either as a personal business, or as a home office away form the workplace. The individual business Travel Plans that will come forward to compliment this Travel Plan, and those from across the wider area, will include measures to encourage these working practices, if appropriate to the nature of the employment.

9.9   This is anticipated to increase the potential for home working from 11.7% to 15%.

Walking and Cycling

9.10   Currently levels of obesity are rising in the population and the government has identified this as a concern to the health and wellbeing of the nation. The promotion of a mode shift to active travel will therefore be a primary aim of the transport strategy. The current levels of travel for these modes from the Rackheath Ward, taken from the 2001 Census, are 3.6% by walking and 3.3% by cycle. These levels of travel are, however, somewhat depressed by a combination of factors such as the limited range of destinations in the Rackheath area and the lack of dedicated travel facilities for these modes.

9.11   The proposal includes for an increase in the provision of employment in the area. Increased opportunities will be provided on both sides of the site (at the Dakenham Project and adjacent to the existing industrial estate). Both of these areas are well within the recognised walking distance of travel to work of 2,000m for the whole of the new housing. To enable movement between the residential and employment areas a network of footways and cycleways segregated from the vehicle travel network is proposed. Anticipated desire lines will be established and defined routes based on these will be constructed to an appropriate standard of infrastructure. Good levels of lighting provision and easy gradients will assist in promoting the required modal shift. On this basis it is anticipated that the travel to work mode share for walking would rise from 3.6% to 5.7% of all travel to work journeys.

9.12   The Broadland Business Park is a major employment area for the Norwich area and has been under construction for some years. Large areas of the development are still available and its continued success as a source of employment will ensure that employment opportunities for the area will increase for some time to come. The business park lies some 2.2 km to the south west of the eco-community and is therefore well within the recognised 2.5km distance for cycling. To promote the use of cycling for travel to the business park, a

network of potential cycle routes has been identified.

9.13 The masterplan for the site also identifies an internal network of segregated cycleways which connect the residential areas of the site to the external road network. It is also anticipated that following the completion of the NDR, the level crossing on Plumstead Road outside Thorpe End and Green Lane East will be closed and alternative arrangements made which should include improved arrangements for cyclists. Cyclists will therefore be able to use Green Lane East to access the cycleway proposed alongside the rail line as part of the NDR proposals. On reaching Plumstead Road, cyclists will be able to pass along Plumstead Road via a cycleway to be constructed alongside the road to Green Lane North, Thorpe End. This is planned to be converted to a cycleway as part of the Broadland Business Park extension proposals. From here it will be possible to access the internal cycleway network at the business park.

9.14 In addition to the above, two further cycle routes have been identified, to Wroxham and Salhouse. The route to Salhouse would leave the site via the closed off section of Station Road and utilise the existing footway currently running along the field boundaries parallel to Salhouse Road to enter Salhouse village opposite the Bell Public House. Where necessary, the existing footway would be upgraded to provide an all weather surface. The route to Wroxham would use Stonehouse Road to exit the north of the site after passing over the leisure cycleway which is to be established on the re-created heathland. Cyclists would then pass along Stonehouse Road until they reached the B1140 Salhouse Road which would then be used to access the Wroxham area from the south. These two further routes to Wroxham and Salhouse are essentially leisure routes.

9.15 The emphasis on travel reduction has been based around commuting and the measures identified are anticipated to increase the travel to work mode share of cycling from 3.3% to 7.8%.

Bus

9.16 To achieve high quality and frequent bus services, that are attractive to the public, it is important that bus service reliability is maintained at a high standard. The phasing of public transport requirements for strategic growth locations as they are developed has to take into account the existing bus services. The NATS implementation plan gives proposals for the integration of the proposed services as the development progresses leading to the final

services outlined in the paragraphs below;

9.17   Two key destinations for bus travel have been identified - Norwich city centre and the Airport Industrial Estate. Both routes would operate on 10-minute headway and would be interlaced to provide a 5-minute frequency through the development. It is envisaged that bus services would commence at 05:30 with the first bus leaving Vera Road. Buses would depart Vera Road at 20 minutes intervals (for each service) until 07:00 when the 10-minute service would begin for each route. The 10-minute services would continue until the departing service from Castle Meadow at 19:30 when the 20-minute service would again occur with the last bus departing Castle Meadow at 23:50. Notices would be displayed on the stops serving these routes advising of suitable taxi services for the period 23:50 to 05:30. Both routes would also encompass the existing community of Rackheath thus ensuring that the benefits of improved public transport are provided to all.

9.18   It is envisaged that from first occupation to approximately 500 household occupations, the services will be developer supported, but that beyond that level of occupations they will have achieved commercial viability. The phasing of services will allow for increasing the 6-day daytime (07:00 to 19:00) frequency of services from an initial half hourly service, increasing to 20 minute after 250 occupations, 15 minute at 500 occupations and 10 minute beyond 750 occupations. Over the same trigger points, the evening service will be introduced at 250 occupations on an hourly frequency, increasing to 30 minute beyond 500 occupations. Sunday services will commence at hourly during the day, and beyond 500 occupations increase to half hourly with an hourly evening service.

9.19   The route to Norwich city centre would start in Green Lane East before passing along Vera Road into Salhouse Road where it would return to the Sole and Heel junction and access the eco- community road network from Green Lane West. It would then pass along the Western Distributor Road and into the industrial estate extension before exiting onto Wroxham Road via the new access roundabout. The location of stops along this route would be planned so that no new dwelling is more than 300m from the nearest stop. This is less than the normally accepted 400m walk distance given in the Norfolk Bus Strategy.

9.20   On leaving the eco-community the service will then operate on a limited stop basis to the city centre with stops provided at Sprowston Manor (for the park and ride site) and the Tesco store at Sprowston. The route would leave the Tesco store and pass along Blue Boar Lane before using Salhouse road to get to Mousehold Heath. On leaving Mousehold Lane the bus

would pass through the city road network, using bus lanes wherever possible, before terminating at the Castle Meadow bus stands. The termination at the bus station will also enable travellers to reach other key destinations in greater Norwich with a single change. The journey time for this route is anticipated to be 29 minutes.

9.21 The second route would initially use the same route to the Tesco store with the exception that this route would pass along the eastern distributor road within the eco-community. On leaving the Tesco store, the route would pass along Sprowston Road using the existing bus lane until it reached the outer ring road before entering the industrial area at Vulcan Road. The route would then use the existing industrial roads and terminate at the holiday inn hotel adjacent to the airport. As with the other route, this service would also operate on a limited stop basis once it has left the eco-community and the anticipated journey time for this route would be 26 minutes.

9.22 In planning these routes, consideration has been given to existing bus routes in order to minimise abstraction of passengers from them and coupled with the low journey times for the routes together with the planned concessionary fare structures is anticipated to increase bus travel to work mode share from its current 4.9% to 14%.

9.23 The focus for bus services in the eco-community would be the transport hub adjacent to the district centre and proposed Rackheath railway station. This would facilitate interchange between modes and also maximise accessibility of the district centre for residents of both the eco-community and surrounding area. Cycle parking will also be available.

9.24 The bus routes servicing the Rackheath eco-community will be procured and subsidised by the community trust. In procuring services for the above routes, high quality, environmentally friendly vehicles will be specified. The environment of bus stops and the transport hub will also be specified with high quality materials and be well integrated with the adjacent development. Bus priority measures within the development will include the use of bus-activated gates on the internal loop road which will restrict private transport movements across the site, but permit the bus a high degree of penetration.

Rail

9.25 Although a constraint in terms of development area, the existing railway also represents an invaluable opportunity as an already established transport facility to be expanded to cater for two markets to Rackheath - freight and passengers.

9.26   The freight traffic will consist of:

- Biomass material for the proposed energy centre, amounting to about one train per day (depending upon the density of material used). The most likely material in the first instance will be woodchip, imported through a deep water port and moved in trainloads, though will ultimately be sourced from energy crops grown in the UK;

- Materials and products to service the needs of the new and existing employment areas;

- Aggregates and other building materials for the development.

The freight service pattern will probably amount to one train per day, ideally the trains arriving at night to avoid interference with passenger services.

9.27   The passenger market will mainly be local residents bound for central Norwich. When the site is fully developed, up to 1,000 peak period (2 hour) passenger trips could be handled by rail. The journey time from Salhouse to Norwich is about 12 minutes.

9.28   The passenger service is likely to be developed on an incremental basis as follows:

- By introducing a second service each hour to the route, terminating at either North Walsham or on the new freight branch and shuttling into Norwich. A second station is planned at Rackheath and a third station (Broadlands) could also be served when built as part of the Broadland Business Park development to the south of Rackheath;

- By moving to a four times per hour service the extra trains terminating on the freight branch to allow the driver to stop the train and return in the opposite direction. This would require additional works in Norwich station to provide extra flexibility in accessing platforms. A timetable and engineering measures have been considered to ensure that this strategy is achievable;

- The possible adoption of all the above services to a tram – train approach. This would permit lower cost platforms to be built and allow trains at Norwich to switch off the mainline tracks into a new siding on the station forecourt. This would open the option to then extend the tram service along streets, through Norwich city centre, towards the University, greatly increasing the number of potential trips that could be served. Within the Eco- Community, the tram-train route would leave the heavy rail line near the new Rackheath station and would operate along the central spine with three tram-train stops within the development,

before returning to the heavy rail line at Salhouse station. The Masterplan has been designed to allow for such a possibility.

9.29   The infrastructure to accommodate these services would consist of:

- a freight branch, with signalling, which would include a number of sidings to accommodate the energy centre fuel train and aggregates traffic;

- a new station at Rackheath;

- If more than two trains per hour are offered, track would have to be reorganised at Norwich station to access platforms 4, 5 and 6. Alternatively, if tram-trains are employed, a new crossover could be installed and one of the carriage sidings extended to the north of Norwich station to reach the forecourt area to create a new "tram" stop.

9.30   Tram-trains are lighter than normal heavy rail vehicles, have higher acceleration and use less energy. They typically carry up to 150 people and can operate in pairs. They can be bio-diesel or electrically powered. Their main virtues are that tram-trains can run with other heavy rail traffic, use existing rail routes to achieve competitive lengths of haul and then switch to street running. When off-rail, they do not need signalling and can operate by 'line of vision' principles. Platforms can be 'high' or 'low'. If tram-trains are introduced, the relationship with the proposed bus services will be integrated.

9.31   The implementation of the proposed improvements to the rail services and access to the station is anticipated to increase the rail travel to work mode share from its current 1% to 6.5%.

Car Sharing

9.32   Residents will be encouraged to sign up to the Norfolk Car Sharing database, at www.carsharenorfolk.com. This will be supplemented if needed by a specific Rackheath database, or creation of a subset of the Norfolk database. This is anticipated to increase the proportion of journeys to work by this mode from 6.2% to 12%.

External Road Network/NDR

9.33   Two main vehicular points of access into the development are proposed, one from Green Lane West and one from Wroxham Road. Improvements may become necessary to the existing road network as a result of any development generated traffic but these will not be

identified until detailed traffic modelling has been undertaken. It is, however, anticipated that some improvements will become necessary along Wroxham Road in order to improve safety on this route, as well as to the existing Industrial Estate access.

9.34   Consideration is also being given to the closure to vehicular traffic of the level crossings outside Thorpe End and on Green Lane East, which would remove through traffic from part of the eco community.

9.35   Norfolk County Council and the consortium of district authorities forming the Greater Norwich Development Partnership have formulated transport strategy proposals for the greater Norwich area taking into account the housing growth proposed for the area. The effect of this housing increase has lead to revisions of the Norwich Area Transport Strategy (NATS) which lays down the strategy for managing the growth of traffic within the greater Norwich area. An integral part of the NATS strategy is the Norwich Northern Distributor Road (NDR) which is intended to relieve the northern suburbs of Norwich of through traffic which currently uses unsuitable residential streets to pass from one side of Norwich to the other. The NDR passes to the south of the Rackheath site but is not directly connected to it. Connections onto the NDR would be provided from the local road network at Plumstead Road, Salhouse Road and Wroxham Road.

9.36   Other improvements identified as part of the NATS strategy (for example to public transport, walking and cycling) will prove attractive to Rackheath residents. The Rackheath development team will therefore continue liaison with Norfolk county council and the NATS team to ensure that the proposals put forward for Rackheath are generally in alignment with and enhance the NATS strategy.

Internal road network

9.37   The internal road network will be designed to give clear indications to the driver of the standard of road provision and the vehicle speeds expected.

9.38   A well defined distributor route network is essential to provide for movement by buses and delivery vehicles, which will have unrestricted access via bus gates. This will have a design speed of no more than 30 mph and will be in accordance with Manual for Streets 2 (MfS2). Wide verges will be provided alongside the distributor roads to enable footway/cycleways to be segregated from essential through traffic. Junctions will be carefully planned to ensure that full consideration and priority is given to the greener modes of foot and cycle travel.

9.39   Away from the distributor road network, all areas will be designed in accordance with guidance from the Manual for Streets (MfS), focussing on the homezone principles and making use of shared surfaces as appropriate. Cyclists and pedestrians will be given priority and car speeds will be restricted by physical features as recommended by the MfS and the associated good practice guide. Cycleways and footways will be provided on a segregated basis based on movement desire lines using different surface colours and textures to make this clear to drivers.

9.40   Within the development the carbon budget for residents will result in minimising car use. A car club will be established, reducing the need for households to own a vehicle.

9.41   Since the range of alternative travel opportunities is high, the need for two cars (or more) per family will reduce and it is anticipated that parking provision will be restricted to one dedicated space per household throughout the development. Additional spaces will be available, with permits for a proportion of the spaces, and a limited number of visitor spaces. An annual rent for each car space is being proposed to generate income for the community trust.

9.42   Each residential parking space will be provided with the infrastructure to charge batteries on electrically powered vehicles. Charging points will also be provided at other appropriate locations throughout the development in order to encourage travel from outside the Eco-Community.

10   MOTIVATION

Sustainability

10.1   Current studies indicate that carbon dioxide (CO_2) is one of the important greenhouse gases and that its emission from the combustion of fossil fuels is one of the major causes of global warming.   It is also argued that transport is the fastest growing source of climate change gases in the UK; road transport alone now accounts for 26% of emissions (source: Campaign for Better Transport, September 2008).

10.2   Everybody can play a part in reducing these greenhouse gas emissions, especially when choosing a sustainable mode of travel in lieu of a Single Occupancy Vehicle (SOV).   For instance:

❖   Walking and Cycling – by far the greenest modes of travel;

❖   Bus or Train – mass transit systems offer a far greener mode of travel per passenger than SOVs; and

❖   Car Sharing – two or more people sharing a car generates half or less of the emissions from a SOV.

10.3   The Institution of Highways and Transportation (IHT) states that three quarters of journeys by all modes are less than five miles (8km) and half are less than two miles (3.2km).   These are distances that can be cycled comfortably by a reasonably fit person.   Based on an average cycling speed of 4.0m/s (14.4kph) 8 kilometres can be cycled in just over half an hour and 3.2 kilometres can be cycled in less than 15 minutes.

Personal Health and Fitness

10.4   Choosing to cycle or walk to the local services and facilities will have positive benefits to an individuals health, fitness and well being.   The Government, through the National Health Service, recommends that everybody should exercise to:

❖   Reduce the risk of heart attack and chances of survival;

❖   Reduce the risk of developing long-term diseases;

❖   Increase life expectancy and improve quality of life in later years;

❖   Increase confidence;

❖ Improve appearance – body fat is reduced, muscle definition is improved, and skin improves in appearance as more oxygen is delivered to body tissue;

❖ Improve posture;

❖ Provide natural pain relief; and

❖ Have a positive effect on breathing, blood supply, muscles, and bones.

Financial

10.5 There are also significant financial benefits associated with green travel modes. For a number of years fuel prices have been steadily increasing. This, coupled with increased parking charges, increased car tax, vehicle maintenance, and vehicle depreciation, the costs of using the private car as the commuting mode of choice is spiralling.

10.6 With the exception of purchasing a bicycle, cycling and walking to or from the Rackheath site do not have any cost implications.

11   SETTING TARGETS

11.1   In order to establish whether a Travel Plan is working successfully it is necessary to identify a set of targets. The Transport Energy Best Practice Guide for Travel Plans identifies that Travel Plans should be SMART:

*   ❖   Specific

*   ❖   Measureable

*   ❖   Achievable

*   ❖   Realistic

*   ❖   Time-bound

11.2   In identifying suitable Travel Plan targets, use has been made of the Transport Energy Best Practice guide on Travel Plans.

11.3   A number of 'Action-Type' targets have been identified as being suitable for the proposed development. These are non-quantifiable targets and take the form of actions which need to be achieved including target dates. These targets are summarised in **Table 11.1** below:

Action	Target Date
Appoint a Travel Plan Co-ordinator	At opening of Sales Office
Produce a Travel Information Pack detailing available public transport, pedestrian and cycle links and distribute to all new residents	At opening of Sales Office
Undertake a Residents / Visitors travel survey	6 months after first occupation
Set up a car share database	6 months after first occupation
Organise cycle riding and maintenance training events	6 months after first occupation (and twice annually thereafter)

Table 11.1: Summary of 'Action-Type' Targets and Dates

11.4   Table 11.1 shows the 'Action-Type' targets that can be identified without detailed knowledge of future travel patterns.

11.5   Once the development has been completed and Residents / Visitors travel surveys have been undertaken and analysed, a number of 'Aim-Type' targets can be identified. These are targets with a quantifiable result and should be challenging, but also realistic and achievable.

11.6   Depending on the actual survey results, the following are suggested mode share targets for the various modes of transport. The progress towards achieving these targets will need to be monitored and reviewed on a regular basis.

11.7   **Table 11.2** shows examples of possible future 'aim-type' targets for this development. The targets in Table 11.2 are based on initial assumptions and can be adjusted once existing travel patterns for the development have been confirmed through appropriate surveys.

Aim	3 Year Target	5 Year Target
Increase working from home by	14%	28%
Increase walking trips by	25%	58%
Increase cycling trips by	65%	136%
Increase bus patronage by	100%	186%
Increase rail patronage by	200%	550%
Increase car sharing by	45%	93%
Reduce car driver trips by	21%	44%

Table 11.2: Summary of 'Aim-Type' Targets and Dates

11.8   The examples shown in Table 11.2 are aspirational and should be refined once an accurate travel survey of the development site has been completed. The existing modal splits for the various modes of transport derived from the travel survey will influence the targets set.

11.9   Applying the proposed modal shift targets in **Table 11.2**, to the current travel patterns shown in **Table 11.3**, the future travel patterns (five years from the start of the Travel Plan) for the travel to work trip for the development site can be calculated as shown in **Table 11.3** below:

Mode	Adjusted Percentage	5 Year Target Shift	5 Year Modal Split
Work From Home	11.7%	28.2%	15.0%
Walk	3.6%	58.3%	5.7%
Bicycle	3.3%	136.4%	7.8%
Bus, minibus or coach	4.9%	185.7%	14.0%
Train	1.0%	550.0%	6.5%
Passenger in a car or van	6.2%	93.5%	12.0%
Driving a motorcycle, car or van	69.3%	-43.7%	39.0%

Table 11.3: Rackheath Method of Travel to Work Post Travel Plan (5 Years)

11.10 **Table 11.3** demonstrates that after a five year period and if the Travel Plan hits its targets, the proposed modal split for the method of travel to work would reduce car drivers to approximately 39% of all trips and increase the more sustainable mode split (homeworking, walking, cycling and public transport) to approximately 49% of all commuting trips.

11.11 Delivering this level of car travel reduction, given that travel to work comprises approximately 15% of all travel (Source: National Travel Survey 2009), will significantly assist in reducing the number of vehicles, as well as single occupancy vehicles generated by the Eco-Community. This represents a reduction of nearly 5% in car driver trips from the overall travel impact of the Eco-Community.

Eco-Community Headline Target

11.12 The headline target of the Eco-Community is to provide for at least 50% of journeys from within the Community to be by non-car modes, with the potential to increase this to 60%. On the basis of the TRICS database multi modal surveys for the East Anglia area, the baseline mode share is shown in **Table 11.4** below.

Mode	Baseline	Target
Walk	38%	38%
Bicycle	7%	10%
Public Transport	2%	8%
Passenger in a car or van	15%	18.3%
Driving a motorcycle, car or van	38%	25.7%

Table 11.4: Baseline Household Travel by Mode

11.13 Delivering on the headline target of a 50% reduction in single car occupancy will reduce the car driver proportion to 25.7%, and is anticipated in itself to achieve the Eco-Community minimum 50% non-car travel target. There would be expected to be an increase in car passenger, cyclist and Public Transport trips, but the level of containment of travel needs within the Eco-Community is expected to enable the high levels of walk and cycle trips to be easily delivered.

11.14 With the reduction in car driver trips in total, the average car occupancy would increase from approximately 1.4 persons to over 1.6 persons per vehicle. Achieving this increase, with a reduction in car drivers, is challenging, as the potential for car sharing may reduce. The measures available for non-car travel, particularly for public transport trips across the wider network are considered appropriate to take up any reduction in opportunities, particularly for the key travel destinations at Broadland, the Airport and the City Centre.

11.15 This will deliver the potential for the 60% non-car mode share to be achieved in accordance with the Eco-Community guidance.

12   TRAVEL PLAN MEASURES

Overview

12.1   As part of the development proposals, Travel Plan measures will be introduced to encourage the use of more sustainable modes of transport and minimise the need to travel.

12.2   The key to a successful Travel Plan is to identify which transport alternatives residents and visitors will be prepared to use, and to then make these more attractive than driving alone. Although a Travel Plan should seek to facilitate long term changes in travel behaviour, it is important to make sure that some of the measures put in place have an immediate effect. This helps to inspire confidence in the Travel Plan making it easier to implement other measures in the future.

12.3   Indicative Travel Plan measures which will be implemented by the range of occupiers and users of the site are outlined below together with the reasons for their implementation and the desired outcome.

12.4   Key to the success of a Framework Travel Plan is the management of the linkages between all of the individuals, businesses and organisations involved with their own Travel Plans and in the successful delivery of the same. The Travel Management and Travel Plan Coordinators are key to this.

Travel Management Coordinator

12.5   The Travel Management Co-ordinator (TMC) will be appointed to promote, implement and monitor the Framework Travel Plan and link the activities of all Travel Plans and Stakeholder/Provider Organisations. The role will include offering and coordinating Travel Plan information and advice to all Travel Plan Coordinators (TPC's), and facilitating meetings with the Travel Plan Coordinators, Authorities, Public Transport Operators, local travel groups and representatives of other major travel areas and Travel Plans.

12.6   A contact name for the nominated TMC will be provided to the Travel Plan Officer at Broadland District Council once appointed. They will commence with setting the plan in progress prior to first occupation to ensure that as new businesses and residents arrive, the sustainable travel ethos is in place.

12.7   The key link from the TMC to the actual delivery of Travel Plans to the travelling public will be through the network of TPC's. A programme of meetings will be set up as a Travel Plan

Steering Group, to ensure that all are brought together regularly to share experience and potential new measures and initiatives as they come forward. It will also be a forum for ensuring that area and County wide and national travel programmes and initiatives are followed and publicised.

Travel Plan Coordinator

12.8   A Travel Plan Co-ordinator (TPC) will be appointed to promote, implement and monitor each of the individual Travel Plans. The role will include offering Travel Plan information and advice to all residents, employees, students, employers and visitors and the promotion of Travel Plan measures.

12.9   A contact name for the nominated TPC for each individual Travel Plan will be provided to the TMC and Travel Plan Officer at Broadland District Council as soon as it is known. The TPC will have committed time set aside each week to dedicate to Travel Plan work although the role is not considered to be 'full time' and is therefore likely to be performed by a person with other professional duties (for instance a member of the sales team while the show house is open).

12.10   The responsibilities of the TPC are many and varied and include:

- Liaison with the BDC Travel Plan officer to obtain literature promoting sustainable travel;

- Overseeing the development and implementation of the Travel Plan;

- Designing and implementing effective marketing and awareness-raising campaigns to promote the Travel Plan;

- Coordinating the necessary data collection exercises required to develop the Travel Plan;

- Acting as a point of contact for all residents requiring information; and

- Coordinating the monitoring programme for the Travel Plan, including target setting.

12.11   The TPC will also be responsible for initiating travel surveys to understand existing travel behaviour and mode splits. The results of the initial surveys will inform each Travel Plan by enabling appropriate long term targets to be set etc. Travel surveys will be undertaken within short, fixed, periods of the first occupation and then on a annual basis.

Travel Plan Steering Group

12.12   A Travel Plan Steering Group will also be set up to:

- Provide management support;

- Steer the Framework Travel Plan in the desired direction;

- Agree any necessary funding required, and identify sources; and

- Monitor and review progress against targets, and taking the Travel Plan forward:

12.13   The steering group will be open to all TPC's and led by the TMC, and representatives from the local Authorities, public transport operators etc will be invited to attend meetings.

12.14   The TMC, TPC's and Steering Group encapsulate the Governance of the Framework Travel Plan. The specifics of the delivery through Infrastructure, programmes, initiatives, funding and publicity are set out as headlines in Table 12.1, 2 and 3 below (and generally in accordance with the NATS Implementation Strategy).

Infrastructure
Provision of a permeable street layout linking different land uses
Provision for pedestrians and cyclists designed to be appropriate in capacity for levels of demand
Segregated routes for pedestrians and cyclists as appropriate
Road crossing facilities which deliver equality or priority for pedestrians and cyclists
Control of parking provision and location (prevent footway parking)
Provide access to bus and rail services with high quality footways and cycleways, secure cycle storage, high standard waiting facilities, with integrated information systems
Quality modal interchange facilities
Level access and accessibility for all highway users
Bus activation for priority at traffic signals
Provide a Green Wave for buses on travel corridors
Extend network of solar powered public transport information kiosks

Table 12.1: Rackheath Method of Delivery through Infrastructure

Service and Facilities
Provide new bus services on radial and orbital routes
Construct new Rail station
Provide new Train-Tram services
Organise and deliver a site car club with a range of vehicles available from a number of locations, with a variety of hire periods and options
Ensure that Broadband is provided to all building in the development
Provide homes with a work from/at home capability
Produce a development wide co-ordinated delivery / service strategy with potential trans-shipment
Provide electric car charging spaces form the outset, with infrastructure in place to increase number of spaces as demand increases
Workplaces to have showering and changing facilities
Workplaces to have clothes drying and storage facilities
Provides secure cycle parking, benefiting from natural surveillance if appropriate, in a variety of types depending upon the nature of storage required
Provide a local cycle hire facility, possibly on the London model
Seek to provide a Public Transport system that enables through ticketing
Introduce a Travel Cards / Oyster Card system, to simplify paying for travel
Implement a GIS based Real Time Bus, Rail and Train-Tram information system

Table 12.2: Rackheath Method of Delivery through Service and Facilities

clarkebond

Promotional Strategy
Provide Home Welcome Packs
Provide Employee Travel Packs
Using trained staff offer a Personal Travel Planning service to all new residents/employees, with refresher sessions
Provide Travel Vouchers valid on Bus and / or Rail services
Provide Cycle vouchers for purchase of bikes and equipment
Provide free Bike Doctor sessions
Use salary capture for the funding of Season tickets
Implement car parking management regimes which offer preferential location of parking for car sharers
Operate parking permit systems which limited access to the car park to 4 days in 5, or similar limitations
Provide 'Pooled' wet weather clothing in workplaces for use by staff
Provide a guaranteed ride home for non-drivers who are required to work outside normal hours
Introduce a site wide Intranet site and link specific business Internet/Intranet sites
Publicise and become involve with Local and National Sustainable Travel Event promotion (Car free days, cycle weeks, etc)
Provide and keep updated Information boards in public places with travel information
extend solar powered PT information network already in operation in Norwich
Provide electronic links to travel information and circulate updates by email
Develop Walk and Cycle 'Buddy' groups

Table 12.3: Rackheath Method of Delivery through the Promotional Strategy

13   COORDINATION, MONITORING AND MEASURING SUCCESS

13.1   It is important to recognise that Travel Plans are live documents and as such develop over time with changing conditions. Monitoring and review is an integral part of a good Travel Plan and its results can help recognise success, and generally raise awareness.

13.2   Household surveys of the travel characteristics of residents will be carried out within six months of first occupation and annually thereafter up to 5 years beyond the final completion of the development.

13.3   The findings of the above surveys will be reviewed and a short monitoring report prepared to identify progress of the Travel Plan in terms of achieving its targets. Should the Travel Plan be performing better or worse in respect of the initial targets then suitable adjustment measures will be identified. These could include additional 'carrots' if targets are not being met and the setting of more challenging targets where they are.

13.4   The monitoring report will be issued to the BDC Travel Plan officer for information and review within 3 months of the date of the travel surveys. If necessary a meeting will be arranged between the TPC and the BDC Travel Plan officer to discuss progress and the way forward.

14   SUMMARY AND CONCLUSIONS

14.1   In summary, this report has demonstrated the following:

❖ The principal objective of this Framework Travel plan is to minimise the number of single occupancy car journeys made, promote travel by the more sustainable modes of transport, and manage the overall transport impact of the development;

❖ In particular the travel plans demonstrates:

(a) How the town's design enables at least 50 per cent of trips originating in eco-towns to be made by non-car means, with the potential for this to increase over time to at least 60 per cent.

(b) Draws on good design principles, from Manual for Streets, Building for Life, and community travel planning principles

(c) How transport choice messages, infrastructure and services are provided from 'day one' of residential occupation, and

(d) How the carbon impact of transport in the eco-town will be monitored, as part of embedding a long term low-carbon approach to travel within plans for community governance.

❖ Demonstrate the means and proposals for Pedestrian and cycle links between the site and the local services and facilities utilising the lightly trafficked lanes in the vicinity;

❖ Improve existing public transport provision with bus and rail services to all parts of the Eco Community and Norwich City Centre and beyond, passing the site every 10 minutes or better;

❖ The Travel Plan targets for the first 5 years are to:

- Increase walking by 75%.

- Increase cycling by 150%.

- Increase bus patronage by 285%.

- Increase car sharing by 12%.

- Reduce single occupancy car vehicle trips by 50%.

❖ To help achieve these targets the following will be introduced and/or provided as part of the development:

- A Travel Plan Coordinator to manage and monitor the Travel Plan.

- Dissemination of sustainable travel information to new residents in the form of a Travel Information Pack.

- Provision of vouchers towards cycle and public transport season ticket purchase together with the negotiation of discounts on other cycle equipment and bus tickets.

- Promotion of a site wide car sharing scheme.

- Availability of an individual travel planning visit for new residents.

14.2 Therefore, it is considered that this Framework Travel Plan is appropriate for this development and should achieve its objective to minimise the number of single occupancy car journeys.

14.3 This framework Travel Plan document is a "living document" and will be further developed as the masterplan develops and in the context of the changing transport context in the Greater Norwich Area.

FIGURES

APPENDICES