



## Getting around in Norwich *Some ideas for the future*

### *Summary of objectives*

There needs to be a balance between enabling people to get around the City centre easily and conveniently while maintaining the attractive environment that makes Norwich such a pleasant place to live, work and visit. With its largely-medieval street layout, this primarily means finding alternatives to the car. This report sets out some ideas to improve this balance in ways that we believe will make the City centre an even better place for everyone, thus enhancing the quality of life and contributing to a thriving economy.

1.1 This report provides our vision for a City centre that is pleasant to walk around, attracts people from far and wide, and is easily accessible to everyone. This means a City centre that is largely free from private motor motor traffic but provides for the needs of businesses and people with mobility difficulties, and that offers public transport, walking and cycling choices that are attractive enough to persuade most people that they do not need to travel into the centre by private car. This report builds on some of the proposals included in our previous *Norwich 2035* report (published in 2014).

Norwich pioneered the pedestrianisation of shopping streets when it closed London Street to traffic in 1967



1.2 For Norwich, getting the balance right between different modes of access is crucial. Travelling into and moving around the city centre and moving is neither as easy or as pleasant as it could be and the car cannot be the prime answer in a city that boasts the largest medieval area of any in the UK. As the Executive Director of Community and Environmental Services at Norfolk County

Council, Tom McCabe, said recently, “We have got to acknowledge that it is a medieval city. The transport systems are near or at capacity and doing nothing is not an option”.

1.3 When considering the vibrancy and economic health of cities, improved ‘access’ is more important than ‘mobility’. Traffic congestion is a fact of life in cities: some

Norwich  
already ranks  
fifth among UK  
cycling cities



even see it as a sign of success. But a city dominated by traffic inhibits the quality of urban life that the majority of people desire. In this context it is worth pointing out that decision-makers often make the mistake of assuming that almost everyone travels by car: Office for National

Statistics show that, on average, around a quarter of households do not have access to a car, making it difficult for them to access essential local services; for example, 40% of people without a car report difficulties accessing hospitals.

1.4 For people living in urban and suburban areas, journeys are generally quite short. The cycle and walking promotion organisation Sustrans has found that five out of six journeys begin and end at home and that for car journeys some 10% are, on average, less than 1 km; 30% are less than 3 km; and 50% are less than 5 km. On average, people make three trips each day, of which only one is work-related.



Most of the current buses cause damaging air pollution and are not especially comfortable

## 2. What we expect from our City centre

2.1 People look for many things in city centre:

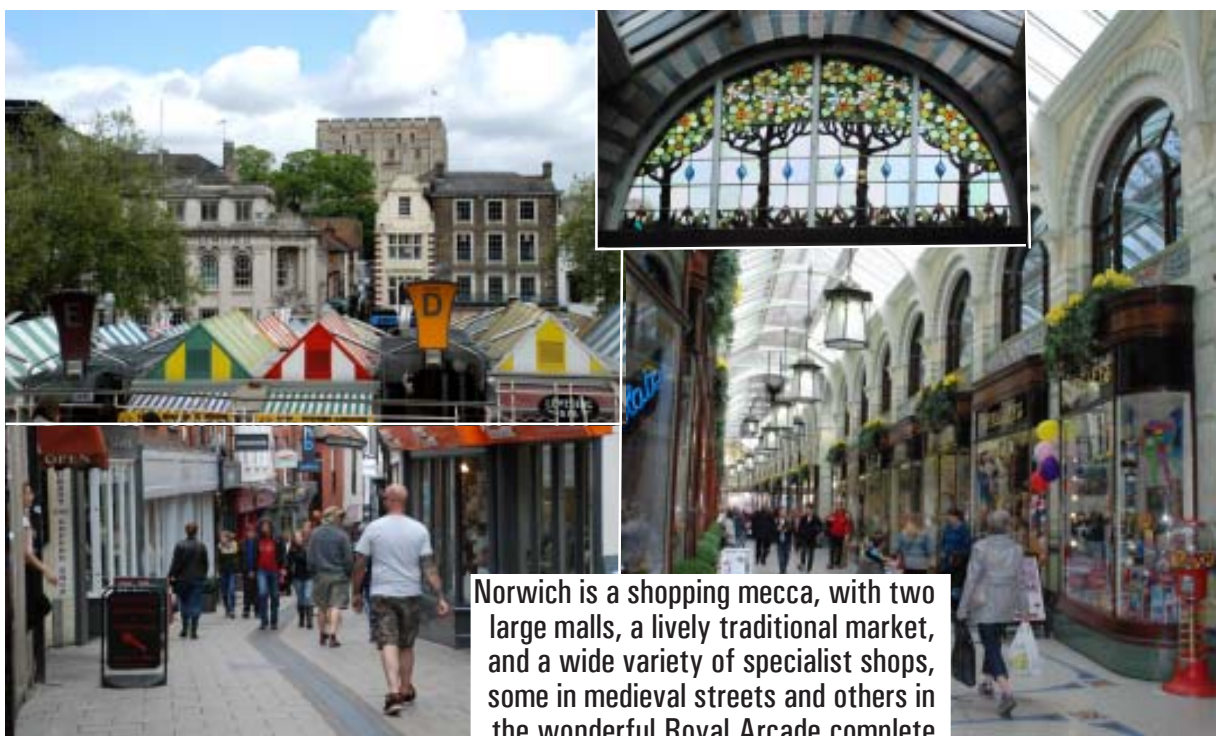
- ◆ Ready access to a wide variety of shops and services, from large multiple stores and banks to specialist retailers and professional services;
- ◆ Entertainment and eating out opportunities of all kinds;
- ◆ Cultural resources ranging from libraries and galleries to museums and theatres;
- ◆ The ability to move around easily in pleasant surroundings;
- ◆ Areas, both indoor and outdoor, to sit and relax and socialise;
- ◆ Unique features that make a city special.



Norwich has medieval churches and outstanding new architecture side-by-side

2.2 Norwich has many of these attributes. Its retail centre is the highest ranking in the region and in the top fifteen nationally. It has a good range of restaurants and entertainment facilities; one of the best public libraries in the country; a range of museums and galleries; a lively market; a much-admired built heritage; and a generally attractive environment.

2.3 All of these attributes are important not just to those who live in the city and visit but also to economic success, helping to attract customers and persuading the entrepreneurs and professionals necessary to a thriving economy that Norwich is a good place to live and work.



Norwich is a shopping mecca, with two large malls, a lively traditional market, and a wide variety of specialist shops, some in medieval streets and others in the wonderful Royal Arcade complete with its amazing glazing

# 3. Managing traffic in the medium term

## Summary

- ◆ **Prioritise pedestrians, cyclists and public transport in the City centre**
- ◆ **Tackle congestion on the inner ring road**
- ◆ **Give Car Club drivers access parity with taxis**
- ◆ **Introduce minibus or similar service for people with impaired walking abilities**

3.1 The Norwich Society has supported moves by the City and County Councils that are heading towards a ban on private cars using the City centre as a through route, eventually closing the final two through routes, Bank Plain and Tombland. Even before this plan is complete, we suggest that the City’s urban traffic control system be used to positively prioritise pedestrians, cyclists and public transport within the centre, to make non-car use relatively more attractive than it is now. We believe that the complete ban on through traffic needs to be implemented to improve vehicular access for those living in the City centre and others who may otherwise face significant problems.

3.2 There is also a need to look for ways to better manage flows at the pinch points on the inner ring road, notably at the Grapes Hill roundabout and the whole section between the Kett’s Hill/Bishops Bridge Road roundabout and the County Hall roundabout, although we



The Grapes Hill roundabout is a notorious bottleneck

recognise that this latter will be difficult. One simple improvement would be to repaint the now almost invisible ‘yellow box’ no-entry-unless-clear markings and enforce this constraint. We also suggest that the tailback from the Chapelfield car park at peak times could be alleviated by stationing staff by the entry machines to simply hand out tickets to drivers in order to speed up entry and the introduction of a ‘yellow box’ constraint on the approach to the entry lane.



Repainting the yellow boxes at the Grapes Hill roundabout would discourage traffic blocking the exits

3.3 On busy days when the City centre car parks are often full, considerable problems are caused by drivers either queuing for spaces or circling looking for a space. At such times, we believe that the existing electronic parking information signs should be used to warn drivers and suggest that signs on the major approach roads to Norwich be installed to advise drivers to use the park-and-ride facilities.

3.4 We are pleased that the Norfolk Car Club is proving successful and believe that it offers a real alternative for City centre residents to the use of their own car, at least for local journeys. To encourage Car Club use still further, we suggest a trial of giving Car Club cars the same privilege as taxis in the City centre and thus enabling cross-city travel within the inner ring road area, although this would have to rely on the introduction of some obvious identification system for Club cars. Norfolk Liftshare is also a worthwhile initiative in helping to increase average car occupancy from its current average of less than two people.

3.5 We also suggest that the provision of an easy-access minibus service within the City centre to help those unable to walk very far should be trialled. We note the introduction of driverless ‘pods’ to serve this purpose in Milton Keynes and recommend a similar approach for Norwich.

3.6 Of course, reducing the use of the car can only be achieved by offering realistic and attractive alternatives. We look at these in the following sections. However, if these measures fail to reduce the proportion of journeys by car combined with the substantial forecast rise in households in the greater Norwich area – traffic congestion in the City centre therefore continues, we suggest that congestion charging may become necessary; we note that this is being considered for Cambridge. enabling cross-city travel within the inner ring road area, although this would have to rely on the introduction of some obvious identification system for Club cars. Norfolk Liftshare is also a worthwhile initiative in helping to increase average car occupancy from its current average of less than two people.

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Driverless vehicles are being used in Milton Keynes to take people around the centre



substantial forecast rise in households in the greater Norwich area – traffic congestion in the City centre therefore continues, we suggest that congestion charging may become necessary; we note that this is being considered for Cambridge.

# 4. Improving the environment for pedestrians

## *Summary of recommendations*

- ◆ Remove 'A' board obstacles in pedestrian areas and better consider the needs of visually-impaired pedestrians
- ◆ Restrict the access of delivery vehicles to pedestrian areas
- ◆ Remove the Magdalen Street flyover
- ◆ Minimise traffic in Magdalen Street

4.1 According to the Centre for Cities report, 15% of Norwich workers walk to their place of employment. But walking can be made more attractive. The City already has very extensive pedestrianised areas but action needs to be taken to reduce the erosion of the benefits by removing some of the obstacles to a pleasant walking experience. First, the

proliferation of 'A' boards in London Street and elsewhere is not merely unsightly but presents an obstacle course that is a real danger to people with poor eyesight. The Norwich Society has long been trying to persuade the City Council to use its powers to drastically reduce the number of 'A' boards. The Society is delighted that the Council is now considering introducing a policy to control these and waits to see if this is effective.



'A' boards and other obstructions make life difficult for people with poor eyesight

4.2 There is a particular need to provide tactile guidance for visually-impaired pedestrians so that they can easily recognise where it is safe to walk and warn when they are crossing into a cycling or other traffic area.



Elm Hill should be pedestrianised

4.3 Many of the City's medieval streets have benefited from pedestrianisation but probably the most attractive of all – Elm Hill – is still open to traffic. We believe that this street should be pedestrianised and that the large and difficult-to-walk-on cobbles (which were, we believe, only installed in the 20th century) should be replaced with a more appropriate surface.

4.4 Uncontrolled access for delivery vehicles to the pedestrianised and other areas is also an issue. We suggest that Norwich should follow the example of other cities and restrict



Two options for Magdalen Street, either diverting traffic completely (*top*) or with buses running one way only (*bottom*)

deliveries in pedestrianised areas between 10am and 6pm. This could be enforced (as, for example, in York and Cambridge) by rising bollards, and this would greatly stimulate the further use of cycle logistics (electric assist cargo bikes, for example) for the ‘last mile delivery’. There is also great potential for enhancing the city centre environment during the day by removing delivery vehicles that take advantage of the existing lax and confusing access controls.

4.5 We would also like to see the removal of the Magdalen Street flyover and believe that this could probably be done without creating too much of a problem on the inner ring road. We have looked at two possibilities but there are also others worth examining to find what might work best.

4.6 Our preferred option would remove all traffic from Magdalen Street except that requiring access; Duke Street, St Andrews Street and Bank Plain would become two-way to accommodate all bus routes. This would provide both the best environment for shoppers in Magdalen Street and any need for a traffic crossing over St Crispins Road; it would probably require all traffic except buses to be removed from Bank Plain.

4.7 If our preferred option proves impractical, we suggest instead making Magdalen Street one-way inbound to the City centre and reserved for buses and vehicles requiring access: this could enable the street to be redesigned for shared space or, at the very least, for the footpaths to be considerably extended. In terms of providing more convenient bus stops for



The Magdalen Street flyover (*left*) should be removed: it is a visual and physical block between the north of the City and the centre. A similar flyover in Leicester (*right*) was demolished in 2015

Traffic in Magdalen Street dominates the narrow pavements and should be reduced or eliminated



Anglia Square shoppers, the bus routing on Magdalen Street and Duke Street would be reversed.

4.8 Both options would, we believe, greatly enhance the viability of the shops in Magdalen Street and enable the flyover to be removed without increasing traffic

congestion on St Crispins Road. Both would also bring the benefit of reducing the impact of traffic on Tombland; once the cross-centre ban on private cars is introduced, this change could also make it practicable to introduce a full shared space scheme in Tombland, greatly improving links between the centre and the Cathedral area. It would obviously make sense for such a change to be integrated with the redevelopment of Anglia Square, not least because it could bring significant benefits by better linking that area to the City centre.

4.9 For those that feel this is a step too far, we would point to Leicester where the Belgrave flyover – which served a similar purpose to the Magdalen Street flyover – was demolished in 2015 partly to accompany the redevelopment of an adjacent shopping centre. The result has been an enhanced gateway to the city with greatly improved connections between the city centre and Leicester’s Golden Mile. The chairman of the local business association commented “You can see a route all the way into the city centre now. Until now, you’ve had this large concrete block in the way. It makes us feel a bit more part of the city. We always were but never really felt part of it.”



## 5. Making cycling more attractive

### *Summary of recommendation*

- ◆ Ensure that cycling improvements are properly planned and designed
- ◆ Pay attention to the experience of users in planning new provision
- ◆ Consider better training and enforcement of existing rules
- ◆ Integrate cycling provision with other public transport modes
- ◆ Introduce more 'Green routes' through the City

5.1 For many, cycling can be a swift, viable and relatively inexpensive way to travel to and around the City. A large proportion of journeys are relatively short and conversion of habitual drivers to cycling can be made potentially more attractive than asking them to switch to the bus as cycling preserves their sense of self-determination. One of the biggest advantages over other travel modes is the predictable journey time and regular cyclists find that the potential disadvantages of weather and carrying capacity are less of a real issue than frequently thought.



This recently re-constructed cycle path over Mousehold Heath provides a pleasant green route

5.2 According to the Office for National Statistics, almost 7% of Norwich workers now commute by bike, putting the City fifth in the league table of UK cycling cities. The City Council's Pedalways is a well-intentioned investment to boost this still further. However, the implementation of the Pedalways scheme has been patchy, to say the least, partly because of an over-prescriptive approach and a failure properly to integrate proposals with other spatial and transport objectives.

5.3 Attempts to segregate bicycle users from motor traffic often cause more problems than they solve; simply excluding or reducing motor traffic is as beneficial for people on bikes as for almost everyone else. Much can be achieved at little cost to encourage responsible cycle use by modest investment in enforcement of existing rules and by training, perhaps offered as an alternative to fixed penalty fines.

5.4 Where major cycle schemes are considered necessary – for example, when changes to the traffic circulation are being implemented – we urge the Council to put much more resource into planning such schemes, designing these in close collaboration with users and also taking full account of the needs of pedestrians. This is to make sure that schemes – such as that which has transformed the lower



It is not obvious what cyclists are meant to do here in King Street

part of Tombland but has left the somewhat unattractive upper part untouched – are designed as part of an overall scheme, even if the complete plan cannot be implemented immediately.

5.5 The usefulness of cycling as a realistic travel mode is further enhanced by good integration with public transport. Where distance makes it unattractive for people to cycle for their whole journey, we suggest assistance could be provided for some by installing secure cycling parking at main bus stops outside the City.

5.6 Finally, we repeat our 2014 call for the introduction of a number of ‘green’ routes through the City for cyclists and pedestrians as a way of making alternative travel modes to the car more attractive. Marriott’s Way shows how this can be done and there are obvious opportunities with the proposals to improve access alongside the River Wensum through the City.



The costly Tombland scheme aimed at improving cycling access was a missed opportunity, as the lower part (*foreground*) is much improved visually while the upper part remains a mess

## 6. Making public transport more attractive

### *Summary of recommendations*

- ◆ **Extend Park & ride services to Sundays and Thursday evenings and better cater for rail users**
- ◆ **Introduce a common electronic ticketing system for all public transport**
- ◆ **Trial reduced fares to encourage more passenger use**
- ◆ **Review routes and timetables to better match users needs**
- ◆ **Improved information about public transport**
- ◆ **Introduce more modern and comfortable buses**
- ◆ **Review the arrangements for bus provision in the City centre**

6.1 The 2015 *Cities Outlook* report published by the Centre for Cities reveals that only 8% of commuters in Norwich use public transport (both bus and rail), placing the city 50th out of 59 comparable cities in terms of public transport use by workers. It is clear that measures to boost bus use are essential if the City centre is to remain accessible to the growing Norwich area population and if the environment of the centre is to continue to be enhanced through further traffic restrictions that both reduce air pollution – Castle Meadow and other parts of central Norwich are in breach of safe levels for fine PM2.5 particles and nitrous oxide safe levels – and benefit pedestrians and bicycle users.

6.2 However, bus travel is generally perceived as being slow, inconvenient, uncomfortable and a second-class alternative to the car. The causes of these perceptions must be tackled if more people are to be persuaded that they do not need to drive (or be driven) into the centre.

6.3 We group our suggestions under six headings:

### *Park & Ride*

6.4 The Park & Ride system – the largest in the country – is crucial as it is unlikely that, in the foreseeable future, the bus services in rural areas will be good enough to encourage drivers to leave their cars at home. So we welcome the changes that Konnectbus has already made and hope that the company will build on this by providing Sunday and late evening services on Thursdays and at Christmas to help shoppers. We also suggest



The P & R bus services have improved considerably after being taken over by Konnectbus but trials are now needed to test the benefits of extended operating times

that a relatively frequent evening service to the rail station from at least one of the P & R sites could be introduced to allow rail users to park outside the city centre (and more cheaply).

### *Ticketing & fares*

6.5 We would like to see the rapid introduction of electronic ticketing using both pre-loaded cards and contactless debit/credit cards as this would have major benefits for both the companies and passengers. It would reduce loading times and make it much easier to overcome some of the current absurdities, where, for example, anyone travelling to the Norfolk & Norwich Hospital or the rail station not on a direct route has to pay two fares. It would also hopefully overcome the issue of different bus companies operating on the same route charging different fares and their tickets not being interchangeable. We note with some exasperation that the 42



Finland has had a common electronic bus ticketing system since 2007

bus companies operating in Finland have offered a common smart ticketing system since 2007 and urge the UK's transport operators to offer the same here as soon as possible, preferably with a system that can be used throughout the country and that is accepted on the railways and possibly even by taxis for Uber-

style payments. As the PTEG – the group representing the public transport bodies in six of the largest UK city regions – says, ‘The full benefits of smart ticketing are only achieved if the ticketing products that are carried on smart media are attractive, readily available and competitively priced and can be used across all service providers and all modes of public transport’.

6.6 The fares themselves also need reviewing. Compared with some other cities, the operators seem to take a pessimistic approach to the idea of increasing passenger numbers by offering more competitive fares and instead try to cover their costs and make a profit through high fares. One exemplar is Bristol where, some two years ago, First West introduced a ‘Fairer Fares’ initiative: fares in Bristol now range from £1.00 to travel three stops (£1.10 for two stops in Norwich); £1.50 to travel up to 3 miles (£2.30 in Norwich); and £2.70 to travel up to 6 miles. As a result, passenger numbers have increased by as much as 20% on some services.

### *Routes & timetables*

6.7 The current bus routes have developed largely as a result of the operators assessing demand from those already using buses combined with serving new developments and competing for the most attractive routes. Almost all bus services go into the city centre and many terminate there. There is little knowledge of the start and end points of journeys involving a change of bus or assessment of the journey needs of people who currently drive rather than use the bus.

6.8 We would like to see the bus operators and local authorities carry out some work to assess where people start and where they really want to go, possibly using some of the information gathered from car users when assessing the need for roads such as the NDR as well as commissioning research to find out the origin and destination of current bus passengers. We suspect that there is potential for developing a few new routes that do not go through the city centre. We note that the Texas city of Houston has just completely revised its routes following the first full-scale review for three decades, introducing routes that provide more frequent and often faster services and leading to a notable increase in ridership.

6.8 We realise that bus operators cannot be expected to run services where there is very little demand. However, there is a real problem for people whose jobs require them to start early or, in particular, finish late and for people wishing to stay in the City in the evenings in that services from rural areas do not start early enough and, even in the urban area, are inadequate in the evening. For example, the last service to Thorpe St. Andrew and Dussindale from the City centre runs at 1842. This is very much a chicken-and-egg issue with operators unwilling to run buses where there is little demand and passengers unwilling to put up with the inconvenience of very infrequent services. However, some other cities seem to be able to serve these needs and we would like some examination of how best better early and late services might be introduced in Norwich, preferably with some incentivised trials.

6.9 New technologies could help: for example, using Uber-style apps used to book journeys ahead might also enable a convenient evening service within the City to either replace or augment the current mostly hourly services that really do not suit most people's needs.

6.10 Journey time is obviously important and we welcome the extension of bus-only lanes to overcome traffic pinch points; we suggest that, in some cases, priority for buses at traffic lights should also be considered. We would also like to see a review of timetables, as these appear to be written for slow-moving peak-hour traffic, requiring significant waits along the route during off-peak periods to keep to the timetable. While the regular timetable helps users know what to expect, we do wonder whether separate peak-hour and off-peak timetables could be considered to provide some faster journeys.

6.11 In particular, there is a need to consider improving facilities to interchange between buses to popular destinations: again taking the Norfolk & Norwich Hospital as an example, at the major Castle Meadow interchange buses to the hospital go from different stops and there is no indication of which



Changing drivers in Castle Meadow sometimes takes several minutes, delaying passengers and blocking busy bus stops

bus will arrive at the destination first without running between stops to check.

## Information

The new First Bus information office in Castle Meadow is welcome but frustrates passengers who want to know about all bus services



6.12 Another factor discouraging people not familiar with the local bus services is the lack of adequate information. There appears to be no single map showing all services; the provision of

timetable and route information at bus stops is patchy; route maps are not displayed in buses and timetables are rarely available on the buses and are sometimes not even available at the bus station. Bus information for visitors arriving at Norwich rail station is extremely limited. And there is very little publicity for the useful Traveline online service and app which provides a simple door-to-door bus journey planner across the whole of England, Scotland and Wales.

6.13 Especially frustrating for passengers is the lack of current information about problems causing either substantially delayed or cancelled services. Most people now have a mobile phone and an app giving such information would be very useful in such circumstances.

## Comfort

6.14 Buses are typically seen as archaic and unappealing, offering a poor alternative to the car. This is not because public transport is, of itself, unattractive: the number of passengers using the railways has never been higher and in places where new tram services have been introduced they have proved very popular. We believe that much can be done to make bus travel a more attractive choice, although we recognise that most of our suggestions cannot be introduced rapidly and do require investment.

6.15 A new standard of comfort and convenience is needed to consign to history the noisy, rattly and often-spartan buses that are



York is replacing many of its diesel buses with clean and quiet electric vehicles

still all-too-typical: the next generation of buses should be designed to be as comfortable as modern trams. The introduction of hybrid, electric, biogas and hydrogen-powered buses will help to make this step-change possible, as well as being essential to reducing pollution in the City centre.



Air pollution and noise in Castle Meadow make for an unpleasant waiting space for passengers

6.16 The three major City centre bus stopping areas are off-putting for people who might be persuaded to use buses rather than their cars. Castle Meadow and St Stephen's Street are frequently so choc-a-block with buses (and, in the latter case, with taxis) that delays are inevitable and buses sometimes have to stop behind or in front of the bay they are supposed to use. An additional problem is the practice of changing drivers in Castle Meadow as this delays services and exacerbates congestion: we urge First Bus to investigate how such changeovers can be made much more speedily. We would also like to see non-service coaches - especially in the lead up to Christmas - diverted away from Castle Meadow and St Stephen's Street, as dropping off and collecting their passengers blocks the service buses (Theatre Street and St Peters Street are possible alternatives).



The bus station could serve more services if laid out differently

6.17 We suggest that there should be a complete review of the arrangements for buses in the City centre. This should include looking at the possibility of greater use of the bus station - where more space for bus stops could be made available, possibly including introducing herringbone parking

arrangements that would substantially increase capacity - and diverting some buses away from Castle Meadow to use Golden Ball Street/Surrey Street instead.

6.18 We would also like more attention paid to the design and siting of bus shelters to provide better protection from the weather and make them visually more attractive. We were interested in the way that the Austrian town of Bregenzwald organised a competition for international architects to design seven bus shelters that were then constructed for free by the local community to demonstrate local skills. The result is a set of bus shelters that now attract tourists as well as bus users by their highly unusual design. We are not suggesting that these particular designs would suit an urban area such as Norwich but do believe that this kind of imaginative approach could help to alter current perceptions of bus travel.

# 7. Managing transport & new initiatives

## *Summary of recommendations*

- ◆ Set up a single body to manage public transport
- ◆ Evaluate the potential for a new tram system
- ◆ Electrify the Norwich to Ely rail line
- ◆ Encourage integration of different travel modes

7.1 Management of the bus network and public transport in general needs to be joined-up. We believe that there is a need for a single planning body for public transport covering everything from hospital services, schools, student transport and all other public transport, with all public money currently going into the services pooled so that it is used to best overall effect. We hope that the Government's moves towards devolution may make this possible. If so, it should clearly include powers to help plan local rail services and to integrate these with the bus system.

Nottingham's modern tram system has proved popular



7.2 With the substantial housing growth planned around Norwich there is an obvious need for expanded public transport provision to prevent the City clogging up with cars. The current policy is to meet this demand with new express buses but we are not convinced that this is necessarily

sufficient and believe that further consideration should be given to the suggestion for a tram or other light rail or guided system using the existing train route to provide a high quality and frequent service into the City from the growth area in the north, with new stations at Rackheath, Thorpe St Andrew and the Postwick P & R



This quiet tram (*left*) runs on rubber tyres with a single guidance rail. In future, electric trams could recharge batteries at stops in the same way as this bus (*right*), eliminating the need for overhead wires



site and perhaps extending this through the City centre to UEA, the Norfolk & Norwich Hospital and the Norwich Research Park and possibly linking into the Thickthorn P & R site. As well as providing an attractive and fast link from an area identified for major growth in the Joint Core Strategy, a tram system could dramatically reduce bus and other traffic in the City centre. New technologies – such as using battery-power with inductive recharging combined with the Translohr system featuring a single guidance rail and rubber tyres – could reduce the infrastructure costs and visual intrusion considerably. Such trams would have a minimal impact on the City environment while providing a fast and attractive public transport service to some key destinations. At the very least, we believe that this is worth evaluating, not least because of experiences in places like Nottingham and Manchester where successful tram systems have been introduced.

7.3 This report is not intended to deal with long-distance travel, but we do repeat our call for early electrification of the Norwich to Ely rail line in order to provide a faster and more frequent service into the City for some Norfolk communities, as well as providing other significant benefits, including a new fast through service to London King's Cross.

7.4 The park & ride concept integrates car and bus travel and there is further scope for encouraging combination of travel modes. We have already suggested that provision of secure cycle parking at strategic locations so that cycling and bus travel can be integrated. Additionally, we suggest that consideration be given to the possibility of bikes being accommodated on some buses, possibly in the provision of more fold-down seats.



Some buses are equipped to carry one or more bikes either on the front or rear of the vehicle

# 8. The future

## *Summary of recommendations*

- ◆ Concentrate on the needs and expectations of users
- ◆ Take advantage of new technologies

8.1 In the short and medium term our proposals are intended to achieve a switch towards modes of transport that make the City centre experience more pleasurable while



Transport start by listening to what people want

improving access both to and within the centre. This will only be successful if the transport provision meets the needs and expectations of users: people have to be persuaded, not forced, to change their habits, otherwise they may simply choose not to come into the City centre at all or, at least, less frequently. Above all, this needs a more co-operative approach between the transport providers and the local authorities and a greater willingness to listen to what users really want.



Driverless cars - this autonomous Volvo is already driving around the streets of Gothenberg - are likely to completely change transport provision in the future

8.2 We would add one final point: new technologies already offer significant advantages for the travelling public and for providers if it is used creatively. In the not too distant future the introduction of autonomous vehicles will create still more opportunities for improving access and enhancing the local environment.



This experimental autonomous delivery vehicle is just one way in which new technologies could change our streets

# Norwich transport in the past



*Photos courtesy of Norfolk Record Office and George Plunkett*

## How you can help

If you or your organisation would like to discuss any of the issues raised in this report or would like to work with the Society to develop any of the proposals, please email us at: [admin@thenorwichsociety.org.uk](mailto:admin@thenorwichsociety.org.uk); or write to us at: Norwich Society, The Assembly House, Theatre Street, Norwich NR2 1RQ

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