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AMENITIES FOR TRAVELLERS

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ABSTRACT

TWEDDLE, G and NASH CA (1993). Amenities for travellers. *ITS Working Paper 409*, Institute for Transport Studies, University of Leeds, Leeds.

This paper reviews the policy and practice regarding the provision of amenities such as petrol filling stations, refreshments, toilets and telephones on trunk and other arterial roads off the motorway network in the UK. Following a review of policy, and of existing levels of provision, a brief comparison is made with other countries. An account is given of interviews with motoring organisations and providers of facilities, and a small survey of road users is described. Finally conclusions are drawn and recommendations made as to necessary policy changes.

The basic policy of providing fuel, refreshments, toilets and parking facilities every 25 miles appears reasonable. However, we were unable to find any systematic source of information on the extent to which this is achieved, and indeed neither the Department of Transport nor in general local authorities showed any great interest in or willingness to discuss this subject. The comments of motoring organisations and casual observation both suggest that actual facilities fall a long way short of this ideal, whilst where facilities were available, hours of opening, quality and value for money were all seen as problems. Providers of facilities pointed to the fact that a minimum level of long distance traffic was needed to provide the potential for commercially viable provision of facilities, and that the costs of the planning system and the widespread presence of illegal fringe operators further limited the market for legal commercial operations.

There was some evidence that many other countries secure the provision of more adequate facilities by means of more active measures by the government. Mostly, the evidence was anecdotal, but in the case of Germany, details were obtained of a publicly owned company which is responsible for developing appropriate facilities and leasing them to the private sector for operation.

The survey of road users produced a disappointingly low response, but did indicate that whilst most road users were able to find the facilities they need most of the time, a significant minority cannot; this appeared to be a particular problem in respect of toilets, where 12% of respondents were unable to find one when needed.

To what extent does this add up to a situation where lack of amenities for travellers amount to a problem requiring government action? We believe that it does. Basically our argument is that the market is failing to provide adequately for the needs of travellers for the following reasons:

- (a) The cost and uncertainty of the planning process restricts the supply of facilities. The risks are too great for small companies to be interested, whilst large companies will only pursue more favourable sites.
- (b) The potential for adequate commercial provision of facilities is further restricted by the presence of widespread illegal operations from converted buses or caravans. Whilst these offer some minimal level of refreshment facilities, their evasion of public health and planning legislation, and their failure to provide facilities such as toilets and telephones, means that they can undercut and still further reduce the market for more adequate facilities.

- (c) There are substantial economies of scale in the provision of facilities, which mean that only busier sites can be exploited commercially. Yet there may be benefits from provision of facilities at other sites which cannot be recouped in the form of revenue to operators but which make provision of facilities economically worthwhile. In addition to the presence of consumers surplus, it is likely that consumers would be willing to pay a premium in order to ensure that facilities such as toilets and telephone are available if they should need them. The technical term for such a premium is an option value.
- (d) There is a failure in the provision of information in that no comprehensive maps exist which provide adequate information on the location of facilities; nor is there adequate signposting or information on whether facilities are open.

In the light of these problems, we recommend the following action:

1. Local authorities should be obliged to gather and publish comprehensive information on the availability of facilities in their area; where facilities fall below centrally stipulated guidelines, they should be required to designate sites for facilities in local plans on which there would be a presumption in favour of development.
2. Where facilities are deemed to be necessary but cannot be provided commercially, a grant towards the provision and - if necessary - operation of the facilities should be made available. This should be seen as part of the basic provision of the road transport infrastructure of the country, and paid for out of road user taxation. It is likely that the most efficient way of securing facilities will be by competitive tendering, with garages or other roadside operations for whom the facilities are complementary likely to offer the most competitive bids.
3. Alongside the provision of more adequate facilities, stringent action should be taken to eliminate illegal snack bars from the roadside. To the extent that one goes further and only grants planning permission to establishments that offer a full range of facilities, including toilets and telephones, one is of course introducing an element of cross-subsidy in that these are likely to be paid for in part in the cost of refreshments. Nevertheless, to the extent that road users in general want such facilities provided, a modest degree of cross subsidy may in this case be reasonable.

KEY-WORDS: Road infrastructure, service areas.

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AMENITIES FOR TRAVELLERS

1.AIMS OF THE STUDY

The study is intended to examine the situation regarding the provision of amenities for travellers on Trunk and other arterial roads off the Motorway network in the U.K. The aim of the study is to examine rest, refreshment, and particularly toilet facilities on major traffic routes. The results are contained in this discussion paper, covering the analysis of a number of aspects of this problem, which may get worse as the use of existing roads increases, and by-passes are built. The main topics addressed in the paper include:

- (i)A statement of the current level of provision of facilities on Trunk Roads and equivalent arterial roads, and how the situation compares with other countries.
- (ii)A statement of existing information available on the attitudes of the general public and relevant organisations on the problem.
- (iii)A summary of past and current official statements of policy, including a review of criteria for locating a network of rest and refreshment facilities.
- (iv)A statement of the factors which may be impeding the improvement in the situation.

Section 2 describes the methodology used in collecting information for the study. We then discuss existing policy in Britain and abroad. The results of interviews with commercial vehicle operators, motoring organisations and operators of facilities are described. A small survey of road users is presented, before we seek to draw conclusions on the factors impeding provision of better facilities and to make recommendations on what should be done.

2. METHODOLOGY

In order to fulfil the requirements of the brief for this study information has been sought from, and meetings held with various institutions, including those representing road users, planning authorities and those representing commercial vehicle operators (both passenger and freight). A survey of road users has been undertaken to determine in what circumstances they find amenities are not available, and what improvements they would like to see.

Information on policy issues has been gathered from various institutions, including the Department of Transport (DoT), a few local planning authorities, the motoring organisations, and the Freight Transport Association. A literature search produced little evidence on the lack of amenities, as experienced by road users. Guidance on the availability of amenities shown on maps would seem to be patchy and unreliable, and this problem has also been addressed by undertaking a map search.

Though both the DoT and local authorities provided information, they were unwilling to be interviewed. The main reason given was because to give one organisation access while the 'Consultation Paper'. Planning Police Guidance on Transport (DoE 1993) was under consideration was seen as unfair.

Companies who currently operate roadside amenity facilities have given their views on the provision of suitable sites. This helps to establish the sort of locations which are attractive to a commercial operator, e.g. at the intersection of main roads in order to capture an extended market.

The policy regarding roadside amenities (if any) in a selection of developed countries has been sought from a number of countries mainly in Europe. However, only in the case of Germany was satisfactory information forthcoming. In most cases information was obtained from published articles rather than policy documents.

A survey to establish the extent of the problem, as experienced by travellers has been undertaken. This has been done by the issue of self completion questionnaires to customers obtaining petrol at a small number of filling stations. Unfortunately the response rate was very low, especially for business travel. The filling stations were selected so as to provide locations situated on routes used primarily by different groups of travellers. It was intended that the survey should highlight problems encountered on road journeys and is not a nationwide random sample.

Respondents were asked to complete details of their last journey of over fifty miles using primarily non-motorway roads. Apart from details of the traveller and journey purpose, the questionnaire was designed to determine the needs of various groups of travellers. In addition, the extent of knowledge of the route was sought to produce evidence of whether travellers are adjusting their travel to amenities known to exist.

The cost of provision of amenities can be high. In order to investigate the value placed on such facilities by road users, and if they are likely to contribute towards the costs of provision, the questionnaire included a simple Stated Preference (SP) type experiment. This asked respondents to rank the availability of various facilities against gift vouchers.

The most important question to be answered by the study is the extent to which travellers find amenities are lacking on non-motorway roads. The survey has been designed to reveal whether a problem exists.

3.SUMMARY OF U.K. POLICY

Although the brief for this study does not cover Motorways, an outline review of policy and provision is useful as many journeys include a short section of these high quality roads. Even on Motorways, it seems the DoT no longer views provision of Motorway Service Areas as an essential part of the infrastructure of a restricted access road.

Since the inception of the Motorway network in the UK, the Department of Transport (formerly the Ministry of Transport) has included Motorway Service Areas (MSA's), located between intersections, as part of the provision of infrastructure. Though the recommended distances have been adjusted at various times, the current policy is to have an MSA at a maximum distance of 30 miles, and a minimum of 10 miles.

Until the early 1980's MSAs were highly regulated, based on suitable sites provided by the DoT. Developers bid for each site, guaranteeing minimum level of provision of facilities on the basis of being offered a long lease.

Since partial deregulation as a result of the Prior Report (DTp 1978a), standards and value for money have improved. However, since the Government now expects private sector organisations to select and promote new MSAs on a commercial basis, the site would no longer be acquired by the DoT (DoT 1992). Opinions have been expressed by operations we interviewed which indicate that the DoT will no longer provide the same backing with regard to supporting proposals through the planning system and a public enquiry is almost inevitable.

The development of new MSAs is widely regarded as having been 'slow', and may become slower if the current proposals are adopted. There are important gaps, notably on new motorways; some of the latter having no MSAs throughout their length. At one time it was possible to drive from Shrewsbury to Folkestone, via the M40, without passing an MSA, providing the vehicle had sufficient fuel capacity to cover over 200 miles.

Turning to the all purpose trunk road network, for which the DoT is also responsible, current policy is given in 'The Control of Development on Trunk Roads', Roads Circular 4/88 (DoT 1988). This states that though there can be no standard rules on spacing:

"Half an hour's driving time (or 25 miles) should be regarded as the maximum which a driver should have to travel without availability of fuel, refreshment, toilet and parking facilities, including parking for heavy goods vehicles. However, on trunk roads where high average speeds normally obtain, it will not in general be unreasonable to expect a driver to travel at least 12 miles before reaching petrol filling and related facilities".

The Circular implicitly recommends the minimum and maximum spacing of amenities on Trunk roads. The minimum 12 miles seems to have been taken from an earlier policy statement, Circular 25/58, which proposed that there should be approximately 12 miles between filling stations on the same side of a road.

Circular 4/88 also encourages Local Authorities to join with the private sector in exercises to identify locations on trunk roads where there do not appear to be adequate facilities. The development of key sites which can provide a range of facilities is also recommended. It is felt that this approach will give road users greater convenience, and a reduced number of access points will improve road safety.

The DoE's 'Policy Planning Guidance Note on Highway Development' (DoE 1988) uses the above Circular as a basis for spacing of facilities. These policy statements only apply to trunk roads. They do have influence over the policies (if any) which local authorities use in the provision of amenities for road users on principal and other roads, many of which carry increasing volumes of traffic.

A survey of 38 English County Councils by the Automobile Association (AA) in 1989 enquired whether they had produced a Roadside Facilities Plan. The results showed that only three of the 28 councils which replied had a plan. Three more had a partial or piecemeal plans, six had plans in preparation, while 16 had not produced a plan. Government policy recommendations had only been acted upon by a minority of councils at that time.

One county which had undertaken a detailed study of the provision of roadside services was Surrey. A report listed in detail what facilities were available on the network of primary routes in the county, and what was likely to be required as a result of planned road improvements.

A set of criteria were developed for application in Surrey to both private and public sector developments. In general, these were to encourage the concentration of a wide range of commercial facilities on key sites, including provision for lorries and coaches. The facilities should be available 16 hours per day, and 24 hours in environmentally suitable locations. New fuel and refreshment facilities would not be permitted where existing facilities were available within 10 miles on the same side of the road.

Local authorities in Surrey would seek to provide additional public facilities to supplement commercial developments. Priorities were seen to be:

- telephones at frequent intervals.
- lay-byes or other parking areas.
- toilets.
- tourist information.
- picnic sites.

Though it is not possible for us to assess the overall effect of the initiative of Surrey County Council, at least one site suggested for commercial development as a result of a proposed new road has been incorporated into the relevant local development plan. We understand that developers are interested in taking this forward, the planning process being eased by the site being zoned in the development plan.

It is proposed to replace the PPG 13 Planning Policy Guidance: Highway Considerations in Development Control (DoE 1988) dating from 1988 by one relating to Transport. This advises Local Authorities to incorporate road improvement schemes into Structure and Local Plans. It does not give any guidance on whether or not associated developments offering amenities to road users should be included in the plans. Inclusion would almost certainly help increase the availability of sites, though unreliability in gaining planning consent would remain a problem. Regarding hotel or motel accommodation, some guidance regarding location can be found in PPG 21 on Tourism (DOE, 1992).

4.THE LEVEL OF AMENITIES PROVIDED

We were unable to find any comprehensive source of information on the level of facilities provided. Consequently our information on this is based on the views of those interviewed and on first-hand experience.

4.1PROVISION OF AMENITIES IN THE U.K

Although the DoT has specific policies on the spacing of Motorway Service Areas (MSA's) on the highest quality roads, even on Motorways many long stretches have not in practice seen the establishment of a service area.

In the case of Trunk and other arterial roads the position is very variable, though generally amenities are under provided, and where refreshment facilities exist, the motorist is provided with little choice and poor value for money. Some major routes have a good level of provision of services, while on others little has been developed.

An example of good provision is the A1 Great North Road from London as far as Newcastle. This has historically had many and varied facilities. Even today some are provided on the sites of old coaching inns and at locations where communities grew as a result of serving the road user.

The A9 road from Perth to Inverness is at the opposite end of the scale. On this 120 mile section the only refreshment and petrol facilities actually on the new alignment are at Tomatin. Elsewhere road users must divert from the road into existing towns and villages; this also applies in Inverness. This situation is the result of the policy of many Local Authorities who wish to encourage use of existing businesses, rather than new facilities which specialise in serving the motorist and will probably offer targeted services available over a longer period of the day.

Companies interviewed for this study which provide amenities are unanimous in their view that ideally what the motorist wants is 'one stop shopping', all facilities at one site (though fuel and toilets are the most frequently used), with direct access from the road. The results of our survey of road users tends to support this view. Even when development of such sites does proceed the trend is for planning permission only to be gained at points of indirect access from the main route.

As more localities are by-passed, with significant benefits both for the road user and the local environment, existing facilities are stranded on the old routes. There is evidence that the planners are not prepared to keep up to date with the demands of the market, and as a result the road user finds the availability of facilities is declining (Renshaw and McCafferty, 1993).

According to most interviewees, the frequency of available facilities on most major routes is far below that stated as guidelines in Government policy documents. With current policies tending to only allow development where this is consistent with development plans, an increase in the facilities available to the road user is unlikely to occur. The objectives of the present policy are only likely to met if there is a change to a more positive and supportive approach to the development of facilities by Government and Local Authorities. Even then public funds will be required to provide non-viable amenities, notably toilets and telephones, unless these can be cross-subsidised from commercial operations.

4.2 COMPARISON WITH OTHER COUNTRIES

In general the level of provision of amenities for travellers on U.K. roads is seen to be less than in most comparable countries, in terms of both the number of establishments and choice of operators. Many respondents to our survey were not satisfied with the amenities currently available in terms of value for money, and it in terms of choice. Some commented that the system in the U.K. is seen to fall short of many European countries, particularly France and Germany. Both these countries see the provision of amenities as a part of the road infrastructure.

Germany has a unique institutional system for the provision of road side facilities which has developed since the autobahn concept was introduced in the thirties. State owned companies constructed petrol stations with refreshment facilities, followed later by service areas.

Since 1949 a public company, Gesellschaft für Nebenbetriebe (G.F.N.), has had responsibility for the provision of sites both on the autobahn, and on the trunk roads in the German States (Ansorge 1983). G.F.N. finance the construction of the site and carry out maintenance, but with a few exceptions the operation of facilities is leased to suitable parties for variable periods, usually two to five years. Rents are used to undertake improvements, and build new sites.

Because investment in the facilities is undertaken by the leaseholder (G.F.N.), most of the operators are small and medium sized companies. High development costs do not act as a barrier to entry to the market as they do in the U.K. The facilities provided thus give a range of choice, though standards and value for money do vary. Petrol is provided at most sites through a subsidiary contract with a fuel company.

The policy of the controlling authority (G.F.N.) is that the customers interests come first. Amenities are provided for customer comfort, convenience and safety. One result of this policy is that some services are provided on routes with low traffic volumes, even though they cannot be self supporting (DTp 1978a).

When comparing our roads with those in Germany the fact that the network of autobahns is much more extensive (10,400km) means that many are the equivalent of our major rural Trunk roads and motorways which have a combined length of 13,925 kilometres, and in any case, in Germany such roads are provided with amenities for travellers as part of the infrastructure (DTp 1993). The result is more facilities of all types, at more frequent intervals.

The system in Germany is changing, eventually private companies will be entirely responsible for the provision of facilities. This may mean amenities provided on new roads may not be as plentiful as on the existing system, the operators will be restricted to those who can finance construction of sites reducing the choice available to the road user. Nevertheless, the British operator Trust House Forte has entered the German market with the provision of a small number of Little Chefs as it feels there is a need for a national chain of catering establishments in the long term.

In France operators of road side facilities provide all the finance for construction and maintenance. The planning system encourages local facilities to be constructed and the operators to become members of the Chamber of Commerce for the area. A site providing amenities is generally seen as a node for development and employment. The problems with gaining planning permission appear to be less significant than in the U.K. and a greater number of site operators exist giving much greater choice to the road user.

Although only the French motorway system, which is largely tolled, has a maximum distance between services, the National road network also appears to have a much better level of provision than British roads. The 'not in my back yard' attitude has much less influence on the provision of facilities on French roads.

The situation in most European countries appears to encourage easier progress of planning and construction of amenities for travellers, and a greater number and choice for the motorist are the result. However, the relatively high cost of land in the U.K. also provides a barrier to the provision of amenities in addition to the planning policy issues.

Provision in the U.S.A. is entirely on a commercial basis. Because many very long distance journeys are undertaken a large number of sites are joint operations between a petrol company and a caterer. One aspect which is also important is that not only are facilities clearly signed in advance, but site operators can display their symbol so that the motorist knows in advance the choice which is available, not merely that there are some services.

The policy in Canada is to support the provision of rest areas on arterial roads with a spacing of 50km to 75kms (Werner, 1974). These provide parking off the road, though provision of fuel and refreshments is left to commercial developers. The policy in Australia is similar. On both national and state roads the planning policy proposes facilities be provided at reasonable intervals, which provide refreshment, toilet and fuel, and are given appropriate access to premises set back from the road with adequate parking. Lay-by and rest facilities should be provided at more frequent intervals. It appears that the policy is only partially successful, with facilities on some stretches of road being inadequate.

5.REQUIREMENTS FOR COMMERCIAL VEHICLES

Provision of amenities for commercial vehicles raise different issues and requirements to those of cars. A lorry needs significantly more space and reinforced parking area, but only provides caterers with one customer. On the other hand a coach may provide over fifty customers who require refreshments in a limited time span causing problems of peak demand. The information below is based on interviews with operators and their organisations in these two sectors.

5.1.LORRIES

All commercial vehicle drivers are required by law to take statutory breaks and overnight rest periods. However, the facilities for them to conform to this requirement can be rather patchy. Generally simple lay-bys are numerous on many Trunk roads, though the DoT does try to minimise the number of locations where vehicles join a carriageway carrying high speed traffic.

The Freight Transport Association (FTA) wish to see basic facilities provided at 30 minute (15 to 20 mile) intervals, consisting of hard standing, availability of a cup of tea at least, toilet and phone. More substantial facilities should be provided at one hour (30 to 40 mile) intervals (F.T.A. 1988).

Many Primary routes are still without provision for lorries. On some the better quality transport cafes have been converted in to establishments such as Little Chefs, as it is easier to gain planning consent for a change of use rather than a new development. Unfortunately these establishments do not accept lorries, the parking area generally having insufficient strength, or space to accommodate lorries. Thus, the position for lorry drivers is at best static, even on roads such as the A1.

There is a particular lack of sleeping accommodation for lorry drivers in the U.K., which encourages a 'sleeper cab culture'. Many operators purchase sleeper cab vehicles, increasing capital expenditure and limiting the potential capacity of the lorry both in terms of weight and volume. Once the driver has a sleeper cab at his disposal, many use them rather than pay for overnight accommodation even where it is available, retaining the expenses allowed.

As a result, operators such as BP Truckstops find that the accommodation facilities they provide are under utilised, while the parking areas at the truckstops are occupied by drivers sleeping in their cabs, using only wash and refreshment facilities. This has financial repercussions, as the operators of rest facilities find the return on investment limited. A possible way forward is for vehicle operators to pay for the drivers facilities direct, though this procedure reduces the drivers 'perks'.

Another oil company, Mobil, is experimenting with the provision of basic facilities for drivers at locations on the A12. A 'hut' is leased to independent caterers for use as a transport cafe, showers and overnight parking are provided at some locations at a charge of £5 to recoup the investment required. The oil company has benefitted from increased volumes of fuel sales at these outlets, and is considering expansion of the system at selected locations.

Another problem for providers of such facilities exists in the presence of vans and converted buses serving refreshments at the roadside, which attract many HGV's. Many of these are contravening both roadside byelaws and catering regulations. However, a blind eye is turned because of lack of alternative facilities. Nevertheless, it is difficult for more substantial catering establishments to compete when others are not required to provide toilets and have very low overhead costs.

The fact that a need exists for facilities is demonstrated by the number of such roadside caravans serving tea. On the day the A21 Pembroey by-pass opened, a caravan serving teas appeared within a few hours!

Even where facilities exist, some are not directly adjacent to the road, tending to occupy land of lower values. This is partly because the lack of facilities means lorry drivers will tend to divert from the route to find suitable accommodation. However, signposting of the sites tends to be variable, some councils such as Surrey, Hampshire and Tayside having a policy of providing directions. Many drivers find facilities through the drivers 'grapevine', or publications aimed at drivers and operators. Provision and signing of lorry facilities on the Primary route network would keep lorries off less suitable roads and reduce both costs and environmental impact.

Provision of facilities for lorry drivers on the Continent is, in general, much better than in the U.K. In France the Route National network has basic rest amenities every 10 to 15 kilometres, they are provided as part of the road infrastructure. There is no segregation between lorry and car drivers and as a result the facilities are:

- (a) More frequent.
- (b) Better quality, and less congested.
- (c) More welcoming, particularly towards commercial vehicles.

Amenities for lorry drivers in other parts of Northern Europe, Germany, Holland and Belgium, are generally good both on and off the Motorways, more frequent and less congested than in the U.K. with free parking. In Eastern Europe and Iberia provision is lower. Italy has facilities for lorry

drivers, but many operators insist that their drivers only use secure overnight lorry parks in order to reduce the incidence of theft.

5.2 COACHES

The development of facilities available for coach drivers and passengers off the Motorway network is similar to that of lorry drivers, i.e. static at best.

The major scheduled coach operators, notably National Express, time both drivers breaks and passenger refreshment breaks to take place at coach stations wherever possible. On major inter-city routes this policy does not create a problem. Some traditional routes stop at long established facilities, such as Barnsdale Barn on the A1.

The main lack of provision appears to occur on tourist routes. For example, we are advised by a major operator that it is difficult to obtain catering facilities suitable for coaches west of Plymouth for traffic travelling to Cornish resorts, or east of the A1 for those travelling to East Anglian resorts, and provision in Scotland is patchy. Scheduled services also have problems on such routes even though the service may only operate at a weekend.

Agreement for coaches to call by appointment at catering facilities and hotels can work well, but does not cover the vagaries of road delays, diversions, or peak and speculative operations. The latter factors impinge on coaching activities, and can cause severe congestion at those locations where coaches are accepted without appointment.

Suitable facilities for coaches are seen to include the ability to serve large numbers quickly, in pleasant surroundings (not an old fashioned transport cafe) and offering a reasonable range of foods, not just sandwiches or fried food. It is debatable whether passengers want a full sit down meal (microwave hot food may be sufficient), but the coach crew might. A no smoking area is desirable. Toilets are very important; one ladies toilet cubicle is not sufficient. The coach should be able to park on hard standing, and be able to drop elderly passengers close to the facilities and avoid tripping hazards.

Obviously amenities of this type require substantial investment, and are probably difficult to justify if based on peak holiday flows. The alternative option currently available to coach operators is to deposit passengers in a town and allow them to find their own facilities, and hope they find their way back to the coach. This practice is seen as unsatisfactory by many passengers, and tends to extend the time required for a break and thus the overall journey time.

One major operator of roadside refreshment facilities, Forte Restaurants, provide waitress service which they find motorists prefer in their extensive Little Chef and Happy Eater chains with over 400 sites. However, these are not suitable to deal with large influxes resulting from the arrival of a coach. A self service system is more appropriate, but these are only viable where larger volumes of trade are possible and as a result this type of facility tends to be confined to the major trunk routes.

Communication with commercial vehicles, both passenger and freight is desirable. This is to alleviate problems resulting from delays, breakdown and accidents. There is a widespread view that the provision of emergency telephones on major Trunk roads, similar to those on Motorways, is long overdue.

6.AMENITIES FOR THE MOTORIST

Although motorists are not regulated in terms of driving hours, in general many stop more frequently than do professional drivers, and require a greater variety of services. They also demand a greater choice. Apart from confidential surveys undertaken by firms offering services, little published work is available other than for MSA's (DTp 1978b) on the views and requirements of motorists.

In order to try to redress the situation a small survey has been carried out as part of this study (see section 8). In addition, information has been gathered from other sources, notably the motoring organisations, and this is reported below.

6.1MOTORING ORGANISATIONS

The general view of the motoring organisations is that there is a general lack of provision. The DoT has failed to support the provision of adequate numbers of Motorway Service Areas even before consideration is given to the adequacy of provision on other roads. The planning system is seen as the major obstacle, and one which deters small independent operators from promoting developments. It is thought that if the planning system was eased, potential investors would be more plentiful.

Some Primary roads such as the A1 have adequate provision for motorists on a historical basis. Many other parts of the network require a combination of flows to be viable (though operators claim that facilities located at intersections have lower turn-in rates than those with direct access). A recent example of a scheme for a fuel and refreshment facilities at the junction of the A458 and B4393 near Shrewsbury, supported by the motoring organisations because of lack of alternatives in the area, went to a public enquiry, but was rejected after a one day hearing. We understand this is a typical situation, leaving the developer with significant costs, and the motorists without the amenities they require.

The easing of opening hours of public houses provides increased opportunities for provision of refreshments for motorists, though the situation contrasts with that at Motorway Service Areas where alcoholic drinks are banned. Nevertheless, pubs do not usually serve the motorist meals throughout the day, and either do not admit or are not acceptable to some sections of the community.

This leaves snack bars as the alternative. Many of these consist of caravans or converted buses, operating illegally and without adequate hygiene. They are not an adequate substitute for proper facilities providing parking and toilets.

6.2LOCATING EXISTING FACILITIES

If rest and refreshment facilities were provided at regular intervals, motorists and other road users would have little difficulty finding amenities when they were required. The current level of patchy

provision, with the exception of some major routes, coupled with lack of roadside information can mean road users have to 'hunt down' facilities.

Obviously the situation is different where the traveller knows the route. In this case the location of facilities and their distance are known, and the road user can, if necessary adjust their journey to what is available, or call at locations they find particularly attractive.

When on unknown territory the road users must rely on maps and guesswork. Signing of facilities off the Motorway is very limited. Some catering and fuel outlets do give advanced warning of their establishment, but this generally only a short distance ahead. Official signing is mainly limited to services in towns which have been by-passed, directing traffic into communities which the new road was intended to relieve. This is not a substitute for facilities with direct access from the new road.

The other source of information on facilities is motorists maps. The Ordnance Survey (OS) Landranger series is too large scale at 1.25 inches to the mile for most motoring purposes. They do show the following tourist information, in addition to Motorway Service Areas:

- Information centre.
- Parking (mainly in urban areas).
- Picnic site.
- Phone (public and Motoring organisation)
- Public convenience in rural areas, though many are not shown, or are closed at night.

Some of these facilities are shown on the typical motorists maps of three or four miles to the inch, though in limited numbers. Conspicuous by their absence from the maps are lay-bys, rest and refreshment facilities. Most show some telephones and toilets, at least in rural areas, and recognised picnic areas. Forte Little Chef restaurants are shown on the AA Motorists Atlas, while Happy Eater establishments are contained in the RAC equivalent. Thus the two most important networks of road side catering establishments are not shown on the same map, even though they belong to the same group of companies.

Firms providing catering outlets do issue their own maps, which show only the locations of other facilities offered by the company. Nevertheless, they are the only, if limited, source of information on refreshment facilities on a national or route basis. Although some information is available, researching numerous different sources is not very convenient for the motorist. It is clear that more signs and maps providing comprehensive information on amenities already available would greatly assist road users.

7.PROVIDERS OF ROAD SITE AMENITIES

An important part of the study consists of finding the views of those firms who provide services to the motorist. This was to establish which services are likely to be offered on a commercial basis, and on what type of roads. Also to discover which areas of demand would require public sector involvement.

It is clear that providing a satisfactory service to the road user is not an easy task. Given the high costs of entry to the market, and the long opening hours, a reasonable return on investment can be difficult to obtain.

7.1 PROVISION OF REFRESHMENTS

Only one organisation, Forte Restaurants, provides a nationwide network of facilities on the secondary road network through its Little Chef establishments. A similar but less extensive network is provided by the same group under the Happy Eater brand name. All of their sites provide toilet and telephones and a significant number are located adjacent to filling stations.

In addition, cut down MSA style facilities are provided on major trunk routes, such as the A1 under the brand name Welcome Break, though there is greater competition from other organisations such as Grenada in this particular field. Forte also provide budget accommodation on major routes in a number of Travelodge developments.

On most of the Primary road network the Forte group has no effective competition, except from a few local independent operators and public houses offering catering. Few of the latter cater specifically for the traveller, having restricted opening times and limited times for ordering food. Most travellers seem to prefer a facility where quality standards are known to be of an acceptable level, and the Forte brand names have traded on providing such a service.

However, a recent entry to the market has been McDonalds, with 'Drive Thru' restaurants at Markham Moor (1991) and Appleby Magna on the A1 and A42 respectively. Although called Drive Thru they do provide mainly seating accommodation, toilets and phones, some having play areas to attract families and traffic information. Evidence from North America indicates that most people who use the Drive Thru facility eat the food obtained in the car park provided, using the system to reduce overall journey times. Such restaurants provide a much lower cost alternative to most of the existing refreshment outlets on rural roads.

Because of their system of using self service, based on low cost and a low margin combined with high throughput it is likely that these outlets will tend to concentrate on roads with reasonable volumes of traffic. Access from both sides of the road is desirable in order to concentrate demand, and this indicates locating outlets at intersections. Nevertheless, where volumes justify outlets on both sides of a road allowing direct access these should be considered.

Many trunk roads are thought to provide opportunities for the development of McDonald's outlets. The self service concept means that they can cope more easily with peak demands, whether this from summer tourist traffic, or a coach load of passengers.

In most cases these trunk routes are already provided with relatively good levels of amenities. In such circumstances it can be very difficult for new developments to gain planning permission, unless they can produce evidence of exceptional need.

We believe that other fast food chains, and one group of pizza restaurants, are considering entry to the market. If the traveller is to be provided with a greater choice of facilities, then new entrants to the market require a nucleus of good sites. If planners assess existing facilities as providing for the

needs of all travellers, then clearly many road users will be denied any preference for road side amenities.

At the other end of the scale, the Forte network is fairly mature, having been developed over the last 35 years. Nevertheless, there are still some significant gaps in the network. The success of the group has in part been due to the long term planning and assessment of potential sites. The organisation adjusts its plans to proposed changes in the road network. They are in a position of knowing which gaps in the network they would like to fill, and which of their establishment and routes require additional capacity. They have the resources to gain permission for development and acquire land.

Though Forte Restaurants will develop a site on any road, those with a low density cannot support facilities on a commercial basis. More important than the density, which should be greater than 10,000 vehicles per day, is the quality of traffic. It should contain a reasonable proportion of traffic which has been on the road for at least two hours, though the operator claims that the most important ratio is the traffic flow/seating capacity.

Tourist routes create problems of peak demand. In some cases trade is based mainly on six weekends in the summer, and queues of cars can tail back from the car park onto the road at such times. The reaction of the highway authority tends to be to apply pressure for expansion of the car park to an extent which would make the development unviable. Thus some tourist routes are sparsely served, if at all.

A confidential report for the DoT concerning the conversion of the A1 to a motorway between Bramham and Scotch Corner has been produced. This is thought to contain data on the current level of facilities available, and a calculation of the number of fuel pumps, seats and beds required on the new road given various levels of traffic. The level of 'need' has thus been established.

Although operators of roadside facilities, like the Forte group liaise with highway authorities, and try to influence the inclusion of suitable sites for roadside service when development plans are being drawn up, in practice most plans do not. In general councils do not talk to operators of roadside facilities.

Even where local plans set aside land for the development of roadside amenities this is not a reliable guide as to where to build facilities. On the new A1-M1 link, a public enquiry went against the planning authority. In another case a development against planning policy was granted permission on appeal by the Secretary for State.

Such inconsistencies in the application of policy increase the costs, and risks, associated with the provision of facilities. They act as a barrier, reducing competition. In general highway issues are not a problem, though developments offering one stop shopping with direct access favoured motorists are being resisted by planners.

In some areas, notably in Scotland, councils discourage development on new roads such as the A9. Instead, they encourage traffic back into the towns along the route to use existing amenities.

The biggest problem operators encounter is gaining planning permission. As many new roads use green belt land, developments will only be considered if exceptional need is established. The cost of

doing so can vary from £15,000 to a six figure sum where a public inquiry is involved. A typical roadside restaurant with eighty seats costs about £0.4m to build; roadside services is not money-spinner. Forte undertake all their own planning and development work (sometimes jointly with a petrol company), whereas other organisations tend to use developers, or take leases on sites where planning has already been granted.

Costs include the provision of services to the site, notably power, water and sewerage. Some developments have to at least partially treat the latter on site. The costs of gaining access to services increases the minimum economic size of a unit, and means that small establishments are unlikely to be developed. The use of redundant sections of road could reduce costs, but access to the new road may be difficult and parking unsatisfactory.

Like the few independent caterers that operate, Forte feel they should all operate to the same standards of highway control, hygiene, and environmental considerations. These do not apply to the vans which proliferate in lay-bys, even those which are licensed. However, existence of such vans does help justify a need when an application for planning permission is sought.

Other issues of concern to roadside caterers are signing, and inconsistencies between the Draft PPG 13 and DoT Circular 4/88. In the latter case catering is not mentioned, and access to site is becoming more difficult. There is no provision for advanced signing of catering facilities, whereas fuel can have signing under certain circumstances. Forte have in some cases erected signs on land adjacent to the road where their facilities are not visible from the road, or visibility is restricted.

7.2 PROVISION OF FILLING STATIONS

When assessing the commercial viability of a proposed new site for a filling station most of the oil companies seem to use similar types of models. These take account of such factors as traffic flow, quality of the traffic in terms of the proportion of vehicles which have travelled a certain distance or time, local population, and competition from existing or potential sites. Though exceptions exist, it is unlikely that a rural road where volumes of less than 1 million gallons per year are forecast could justify a new filling station. The prospects from revenue from a car wash and shop are greater in urban areas, and many filling stations now make half their profits from non-fuel activities.

This means some primary routes will not see any new developments, and these together with roads of lower categories may see a continued decline in the number of filling stations as refurbishment becomes necessary. The imposition of Phase 2 of the EC petroleum vapour recovery regulations on rural sites may hasten this process as a typical site would require additional investment of £100,000. This cannot be justified unless the sales volumes are reasonably high.

Another problem for rural filling stations encountered in recent years is the increased trend towards filling stations attached to supermarkets selling discounted fuel. Some 12% of total fuel sales is now estimated to be through supermarket outlets. Though they mainly affect sales volumes at urban filling stations, members of the rural community are tending to fill up while shopping, and diverting in order to obtain fuel only. One oil company estimates that typically between 16% and 21% of cars using supermarket sites call only for fuel.

It is felt that the supermarkets have unfair advantages in that they can offer 'planning gain', the filling station sites are not scrutinised to the same extent as a transient site on a rural road, and in the

case of one multiple acting as a petrol company which is not holding the compulsory 76 days stock. In overall terms they are not competing on a level playing field, and the long term viability of some transient sites is in jeopardy as a result.

The effect of supermarket fuel outlets has been greater in France, where many low cost supermarkets have opened in rural areas. In some areas these have decimated the other rural filling station sites. It is possible that such retail developments could affect the provision of transient filling stations in the U.K. in years to come.

As profit margins are tightened, fuel companies are tending to concentrate on the geographical areas which they can supply most economically from their own refineries. This is leading to the closure of some of the sites they own, and the transfer of licences to other suppliers at third party sites. A further reduction in the number of filling stations, as well as in competition in some regions, is likely.

On a positive note, the oil companies claim that many new and refurbished rural sites have a greater range of amenities for the traveller. The shop often stocks snack foods, and many have microwave ovens to supply hot food and drinks. Improved toilet facilities are increasingly being provided. The need for public telephones is now recognised by most of the oil companies and is being addressed.

As with other providers of roadside amenities, the oil companies realise the advantages both for them and the customer of one stop shopping, preferably with direct access from the carriageway. Most fuel suppliers prefer a joint development with a catering firm, as many of the site costs such as drainage and access to the road can be shared. Many transient sites have sufficient land for a catering establishment, but an operator cannot be found.

Picnic areas are being provided at many new sites in lieu of catering. However, lack of signage from the road means the only travellers who know of their existence are those who have previously stopped at the filling station. Lack of rest areas is major complaint of road users.

In overall terms, commercial pressures are likely to force a reduction in the number of filling stations on rural roads. However, those which remain will in general provide a greater range of amenities for the traveller. Nevertheless, gaps in the network will increase, a combination of retrenchment, road alterations and changes in the pattern of traffic flow increasing the average distance at which this may be obtained.

Where new sites are proposed, most oil companies have encountered problems. At least one operator adopts the policy that it will only develop rural sites in circumstances where planning permission will be granted without recourse to an appeal, because of the cost of such an appeal will be over £100,000. Such an approach may make commercial sense, but does not provide amenities.

The report on any development which does go to appeal will refer to PPG 13 many times. It is felt by many that Local Authority officials do not take the view that the intention of the PPG is to 'provide' facilities, treating them not as part of the road infrastructure but as development which should only take place in areas zoned for industry.

Even though the oil companies we interviewed liaise with L.A's, the planning system is generally felt to be unreliable with considerable variation in approach from different councils. Some of the

objections are felt to be 'committee' driven, rather than genuine concerns of the public. Many new roads are being built in areas zoned as green belt land, as this is the only place for a new alignment. While roadside amenities are not considered as part of the infrastructure it is very difficult to gain planning permission for any amenities on such roads. We believe there has not been a successful appeal on a development along a road in a green belt since 1974.

7.3 PROVISION OF TELEPHONES

British Telecom (BT) and other operators provide public telephones on a commercial basis. Roadside telephones in rural areas do not generate sufficient revenue to justify their provision. Historically most villages and hamlets had a public phone adjacent to the Post Office, and these can be retained, though some probably could not be justified on the basis of new investment. In cases where communities are by-passed, the new road does not have provision of phones, and BT look for support from the Local Authority for the provision of signs to enable motorists to find the existing phone box.

In general major transport interchanges, such as large service areas on Trunk roads as well as Motorways, have significant numbers of payphones, both BT and Mercury. This applies to Rail and bus stations, and to airports.

Where a public phone would generate low revenues along rural roads, BT try to develop agreements with operators of filling stations and catering establishments for the provision of cash payphones inside premises. More recently they have been extending provision to card operated payphones outside such premises so that they are available when the site is otherwise closed, and can be used to contact emergency and freephone numbers. BT recently negotiated a contract with Shell for the provision of card operated phones at 600 filling stations. Many other filling stations do have coinbox phones available utilising the site operators line, but the facility is not publicised.

A major cost of the operation of the payphone network is vandalism, and it is because of this that payphones tend to be concentrated at sites where someone is around most of the time to limit damage. This combined with low patronage mean that many rural roads, particularly those of 'B' classification and lower, cannot be provided with payphones on a commercial basis.

Alternative communications are available. Private circuit lines can be provided for the Department of Transport, so that Police and emergency services can be contacted. Similar circuits can be provided for the motoring organisations.

For those who seek constant availability of a telephone mobile communications are available, at a price, though the price may fall in the next few years as new systems are introduced. The option of a car or mobile phone is in any case only of benefit in areas covered by transmitters. Very extensive regions of the U.K. are not covered, and these tend to be the more remote areas where other types of phone are less easily available. They include most hill areas, such as the moors of Devon, Somerset and Yorkshire, the Welsh hills and most of Scotland. In addition these areas of poor reception throughout the UK are mainly where population density is relatively low.

Nevertheless, although the motorist who breaks down desperately needs a telephone, to provide a payphone every couple of miles along the road network could not be justified by any commercial organisation, and probably public finance could be better spent elsewhere. The provision of

emergency circuits on trunk routes carrying high volumes of traffic is probably overdue on grounds of safety.

7.4 PUBLIC CONVENIENCES

Although many small rural communities have public toilets, they are often old, poorly maintained, and do not meet modern expectations in terms of hygiene. In many areas, the Local Authority would like to close such amenities to reduce costs. Within the limited resources available, new public toilets are not a priority in expenditure plans.

As the road network by-passes more rural locations the number of public conveniences easily available to the traveller diminishes. They must rely to a large extent on filling station operators and cafes being willing to allow use of their toilets. In fact most do, but place the toilets at the back of the premises so as to encourage the user to make a purchase of some kind, operating 'public' conveniences is not commercially viable.

The result of current policies is that free standing public toilets provided for the road users are at best few and far between, and on many Primary routes simply non-existent. In addition to basic toilet facilities, many travellers wish to see the provision of baby change rooms and facilities for the disabled. A number of respondents to our survey expressed a demand for dog and pet exercise areas on major routes.

Again the policy of the DoT has failed to be acted on. Although Government would like to see the provision of toilets at regular intervals, they are unlikely to be provided on a commercial basis, and local authorities do not have the resources to cover construction, cleaning and maintenance.

The provision of 'emergency' toilets on the motorway network, such as those near Warwick on the M40, are a clear admission of policy failures by the DoT on the country's highest quality roads. What is lacking is a mechanism to fund such facilities needed by road users from road user charges. Companies providing amenities could be asked, or even required to provide public toilets which were subsidised from road tax revenues.

8. ROAD USER SURVEY

Most of this study has dealt with the supply side of amenities. It was realised at an early stage that there was a lack of information on whether road users were actually having difficulty in finding the facilities they required, and the extent of this unmet demand. Unlike commercial vehicles drivers, motorists do not have their driving hours regulated. However, most are likely to wish to stop more often than professional drivers and there are road safety implications if they are unable to do so.

To overcome this lack of information, a small survey was undertaken. Within a very limited budget a national random sample was not possible. Instead, specific flows of traffic on routes away from the Motorway network were targeted. This was done by inviting motorists to collect questionnaires from a small number of carefully selected filling stations, complete the form and return it to us.

The locations chosen were near Norwich and Aberdeen, to target mainly business travellers, and around Whitby and Aviemore to collect information on tourist routes. Some filling stations were open 24 hours to catch night time road users, on and off by-passes, with or without adjacent garage or catering facilities. All but one sold derv as well as at least two grades of petrol. Each of the filling stations (listed in Appendix 1) distributed between 250 and 500 questionnaires and FREEPOST return envelopes.

The questionnaire asks questions on journey length, time of journey and purpose, then asks for details of specific amenities actually used, or required but not available. In addition respondents were asked to rank a set of nine roadside facilities, comparing them with the option of receiving gift vouchers. Unfortunately this pseudo stated preference exercise did not work very well, nearly all respondents placing the gift vouchers as their last choice. A copy of the questionnaire is contained in Appendix 2.

Though never intended as a random sample, the responses received are biased in a number of ways. The survey was obviously well received in the Whitby area as 44% of the questionnaires returned had been collected in that area. A further 28% had been collected from filling stations along the A9 in Scotland. The response from the Norwich and Aberdeen areas was extremely low. In all only 179 usable forms were received out of nearly 5,000 distributed through a dozen outlets.

The geographical spread of responses influences the categories of journey purpose, 48% being for holiday while only 14% were in course of work. Holiday journeys tend to be longer and less regular than most, the longest in the sample being 670 miles, the respondent stating their dislike of Motorways! The other main journey purposes within the sample were visiting friends and relatives (17%) and leisure pursuits 10%). See Table 1.

Analysis of the responses shows a clear tendency for travellers to stop between one third and two thirds of the total journey distance, and require a whole range of amenities. Toilets, fuel, rest and refreshment are the most sought after facilities. One stop shopping is the preferred method.

Table 1: Sample of Journeys.

Journey Purpose	Percentage of sample	Average distance (miles)	Inter-quartile range
In course of work	14	143	75-178
Holiday	48	185	107-225
Family business/shopping	3	72	55-95
Travel to/from leisure pursuits	10	127	63-163
Car ride	5	94	63-138
Visiting friends/relatives	17	111	66-145
Other	3	153	80-256
All journeys	100	151	75-200

Of the sample 55% stopped at some point on their journey to use a toilet, while 12% were unable to find one when they needed it. Sixty five per cent of journeys included a stop for fuel, only 2% finding difficulty in obtaining fuel when it was required. About one third obtained sweets and other

snack refreshments en-route, mainly from filling stations, and a similar proportion stopped at a cafe (Table 2). With the exception of the latter, the average distance before stopping for these facilities was around sixty miles, giving further support to the demand for one stop shopping. The use of most other amenities was very low.

Although many travellers indicate a desire for the availability of telephones, only 8% actually used one, though a further 1% could not find one when it was required. Only 2% used a baby change room while another 2% found them to be unavailable when required. A significant number of travellers (9%) required no amenities throughout their journey. Given the small numbers of travellers unable to obtain facilities (except toilets) when they are required it may be thought that if there is a problem, it is not a serious one. However, the problem is almost certainly more acute on some routes than others.

Table 2: Demand for Amenities and Non Availability

Amenity	Used by (%)	Average Distance to stop	Inter-quartile range	Required but not available (%)
Fuel	65	61	15-95	2
Toilet	55	71	34-100	12
Telephone	8	57	30-76	1
Snacks or sweets	39	65	25-82	2
Layby/rest area	25	64	40-86	1
Cafe/restaurant	34	92	35-104	4
None	9	-	-	-

The facilities actually used on sample journeys were supported by a ranking exercise. The amenities which were ranked most important being fuel available 24 hours per day (43% ranked it as the first choice and 83% third or higher) and free toilet facilities (37% ranked it as the first choice and 86% third or higher).

The other amenities ranked first by more than a very small minority of respondents were telephones and roadside cafes, but as only around 4% ranked them first they are considerably less importance than toilets and fuel. Although the sample was too small to produce robust statistics when disaggregated by journey purpose, it was clear that telephones and the availability of fuel 24 hours per day was ranked higher than average by those travelling on business, or visiting friends and relatives. Rest areas were a low priority of business travellers, despite the fact that some of them cover fairly long distances.

Ranking of the other amenities tended to fall in the middle range, few respondents having a strong preference for any of them. However, rest areas were ranked third by 10% of the sample, while a baby change room was ranked last by 28% of respondents. Only 7% of vehicles in the sample carried a child under three years old.

The last part of the questionnaire asked respondents to list other amenities they would like to see made available, and for comments on those already in place. Only eighty one respondents completed this section.

Of these 32% requested more toilets, many others complained of the condition of existing facilities. Emergency roadside telephones were wanted by 20%, while a further 14% wanted more telephones.

Improvements to signage and information on amenities available were requested by 17% and 11% of those answering the question.

Twelve percent wanted either drive through refreshment facilities or quick service cafes. A similar number complained about the prices charged in existing facilities. A number of respondents suggested safe childrens' play areas, and dog exercise areas.

Demand for road side amenities can be assumed to be related to traffic levels. These are increasing rapidly on non built-up major roads, though not to the extent as those on Motorways (Table 3). If journey length also increases, then the requirement for some facilities is also likely to occur on more journeys. However, modern cars tend to have improved fuel consumption and larger tanks, which increases the distance between refuelling stops.

Table 3: Increased Road Traffic by Road Class.
(Billion vehicle kilometres).

	Year			Increase %
	1981	1986	1991	
Motorways	29.34	40.76	60.95	107
Non-built up major roads				
Trunk	34.65	45.23	59.54	72
Principal	36.06	44.88	57.53	60

Source: Derived from TSGB 1992, Table 4.10, DoT, London.

Unfortunately we have been unable to produce any figures which indicate the expansion of facilities. Nevertheless we are fairly confident that in general supply is not keeping up with demand.

On all types of main roads, cars form over three quarters of the traffic. The motorist and their passengers are by far the most important generator of demand for amenities (Table 4). In terms of road users charges they pay three times their estimated track costs, so a method of funding adequate road side amenities and related infrastructure already exists (DoT 1990), and more tax revenue may be available from motorists. We would recommend that the government funds such facilities, leasing them to the private sector for operation.

Table 4: Percentage of Traffic by Vehicle Category & Road Class (1991).

	Cars	Vans	HGV's	Other
Motorways	77	8	14	1
Non-built up major roads				
Trunk	78	9	11	2
Principal	82	9	7	2

Source: Derived from TSGB 1992, Table 4.9, DoT, London.

9.FACTORS IMPEDING IMPROVEMENTS IN THE LEVEL OF AMENITIES

Our impression is that the major impediment to the provision of amenities is the difficulties encountered in gaining planning permission. In general, a developer faces a whole range of objectors, many of whom accept the need for facilities, but 'not in my back yard'. The need to incur substantial costs without knowing whether permission will be granted means considerable risk is involved.

The relatively high cost of land in the U.K., coupled with planning and development costs, result in a substantial investment to be made at each site. Small and medium sized companies do not have sufficient resources, development tends to be restricted to large companies.

Zoning of land in Structure Plans effectively places a valuation on a site. Where residential valuation applies it is unlikely that road side facilities can be viable. Even if development of road side amenities in such a zone is approved, substantial operating revenues would be required to recover the high cost of land. In other zones, long term viability depends on traffic volumes and availability of alternatives. In most cases agricultural land is used, though on roads with higher traffic volumes the purchase of industrially zoned land can be justified.

The limited number of facilities means that there is almost always a local monopoly. In turn, the situation gives rise to user dissatisfaction on the basis of choice, quality, and value for money.

Only one major catering group (Forte) has developed a chain of refreshment facilities on the secondary road network under the banner of either Little Chef or Happy Eater. They, together with a few independent operators, provide facilities on a purely commercial basis and find difficulty and delay results from the planning system.

There are, of course, many caravans or converted buses offering minimal facilities of a hot drink and a snack. These typically operate without a street trading licence and without adequate hygiene. They are often tolerated as being better than nothing. However, they do further reduce the market for legitimate operators, and for operators providing better facilities. An attempt to provide better facilities is likely to be associated with stricter enforcement of the law regarding such operations.

A further problem is the lack of adequate information, in the form of comprehensive maps of, and signposting to, facilities, including hours of opening. This further reduces the market for, and benefits from, such facilities as are available.

10.CONCLUSIONS

The main conclusion of this study is that, with a few exceptions, amenities on Trunk and other arterial roads are under provided. When choice, particularly of catering facilities, is considered, then

the road user is severely restricted. In the case of provision for commercial vehicles, both lorries and coaches, the situation is at best static, and overnight accommodation severely limited.

In the near future the situation is unlikely to improve. In the case of filling stations there may be fewer, but those which remain will probably be of a higher quality, and offer a greater range of services.

Government policy is not entirely to blame. If the requirements of PPG 13 and Roads Circular 4/88 had been fulfilled most of the primary road network would have key sites approximately every 25 miles, offering fuel, refreshment, toilet and parking facilities. Commercial vehicles would also have been catered for. Sadly, little progress has been made in achieving these policy objectives.

The major reasons for not achieving the policy objectives are:

- Lack of positive support for the policy at Government and Local Authority level, particularly when considering development plans. The U.K. policy is not substantially different from many other countries, though such policies have been more successfully implemented in many other parts of Europe.
- The needs of the road user are not balanced against the demands of local residents, the environment, and existing providers of local services who wish to maintain the status quo.
- Some amenities will remain unviable, and will not be provided at an adequate level by commercial companies. These include toilets, telephones, and picnic areas. If these are to be provided, they must be at least partially funded from cross subsidy or from the public purse, possibly financed from increased taxes on road users on the basis of providing a minimum quality of infrastructure.

In addition, amenities at regular intervals on roads with lower traffic volumes could not be sustained on a commercial basis. Either they can receive some financial support, or, strategically selected locations combined with appropriate signage could direct road users to the nearest site. Some of these may be off the direct route.

Improved signage, and the inclusion of the location of key sites on road maps (provided they meet minimum standards), would allow road users to make better use of what presently exists. Given the current level of information readily available, planning stops to use amenities on roads not traversed regularly is not as easy a task as it could be.

It is clear that the policy objectives laid down over a long period by various Governments have achieved little in the provision of amenities for road users. Ultimately responsibility for lack of provision must lie at their door because they have not established suitable mechanisms to allow the policy to be achieved. As in other fields, setting objectives is easier than achieving them.

If the government is serious about its objectives, then it is likely to have to take a more pro-active role in identifying sites, obtaining planning permission and aiding construction. These would then be leased to private operators, on conditions requiring that a full range of facilities be provided. At the same time, operators not providing adequate facilities, such as caravans, may need to be removed as their failure to observe planning and street trading legislation, inadequate provision of

toilets, and environmental considerations given them an unfair advantage. It is likely that road users would, on average, be willing to pay a small increase in road user charges to support development of such facilities. In technical terms, we are suggesting that market failure occurs because on average consumer surplus and/or option value from the existence of such facilities, cannot be recouped by the operator as revenue. This could be tested by an extended stated preference exercise along the lines of that contained in our questionnaire, although further research is required to establish if this is true.

In the light of these problems, we recommend the following action:

1. Local authorities should be obliged to gather and publish comprehensive information on the availability of facilities in their area; where facilities fall below centrally stipulated guidelines, they should be required to designate sites for facilities in local plans on which there would be a presumption in favour of development.
2. Where facilities are deemed to be necessary but cannot be provided commercially, a grant towards the provision and - if necessary - operation of the facilities should be made available. This should be seen as part of the basic provision of the road transport infrastructure of the country, and paid for out of road user taxation. It is likely that the most efficient way of securing facilities will be by competitive tendering, with garages or other roadside operations for whom the facilities are complementary likely to offer the most competitive bids.
3. Alongside the provision of more adequate facilities, stringent action should be taken to eliminate illegal snack bars from the roadside. To the extent that one goes further and only grants planning permission to establishments that offer a full range of facilities, including toilets and telephones, one is of course introducing an element of cross-subsidy in that these are likely to be paid for in part in the cost of refreshments. Nevertheless, to the extent that road users in general want such facilities provided, a modest degree of cross subsidy may in this case be reasonable.

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APPENDIX 1

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