

# **CITIZENS' ASSEMBLY WEEKEND 2**

Package elements

# CONTENTS

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## IMPROVEMENTS

- Making buses cheap, or free
- Making buses faster and more reliable
- On-demand rural transport
- Adding new bus routes
- More Park & Ride, and Park & Cycle
- Invest more in cycling and walking

## ENABLERS

- Closing roads to cars
- Restrict parking
- Clean Air Zone (CAZ)
- Pollution charge
- Flexible charge
- Workplace Parking Levy (WPL)
- Increase parking charges

## SUPPORTING MEASURES

- Optimise traffic signals
- Travel planning
- Car sharing
- Electric vehicle charging network
- Other ways of raising revenue

# ABOUT THIS BOOKLET

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- This booklet describes the elements you can use to create your future vision.
- Each element is rated in terms of whether it will increase road space and/or raise money. The supporting text aims to give additional explanation.
- It is not possible to give you the definitive impact, or say exactly how each element would look, because there are always many different options in practice. What we aim to provide in this booklet, and in the conversations we will have today, is a sense of the likely direction and scale of impact, and the realistic options and implications of each.
- You can use this information to help you decide which elements you want, and in what proportions you value them.
- We are not asking you to decide on the detail of any individual element, just tell us how ambitious your vision is for improvements, and which enablers you recommend using to deliver it.

# KEY

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## CREATING ROAD SPACE



Likely to create road space for public transport, cycling and walking improvements



Unlikely to create substantial additional road space (in some cases, may reduce space)

## REDUCING EMISSIONS



Likely to improve air quality and reduce carbon emissions



Unlikely to substantially improve air quality and reduce carbon emissions

## FUNDING TRANSPORT IMPROVEMENTS



Likely to generate funding to support public transport, cycling and walking improvements in Greater Cambridge and across the wider area



Likely to be cost neutral, or relatively low one-off costs



Likely to require funding for an ongoing period

# IMPROVEMENTS

# MAKING BUSES CHEAP, OR FREE

Subsidising some or all people to travel



## WHAT IS IT?

Making it cheaper, or free, for people to use public transport. This could be targeted at certain groups (e.g. disabled people, low-paid workers, apprentices), or available to everyone. Some people already benefit from reduced or free travel. This would most likely be for buses; GCP has no influence over train fares. Subsidies for season tickets may be possible, but would be very expensive.

## WHY WOULD WE DO THIS?

To make public transport cheaper relative to car. In a GCP survey of car commuters, 'Price' was the second most common reason respondents gave for not using an alternative mode of transport.

## REDUCE CONGESTION?

GCP analysis suggests that for most Greater Cambridge commuting journeys, price is less important than journey time when considering whole journey costs. For many routes, making public transport cheaper or even free still doesn't make it a 'better' option than car when time costs are included

## REDUCE EMISSIONS?

A big shift to bus with no new vehicles introduced would have a positive impact. If new vehicles were introduced, impacts would depend on the emissions levels of the new buses introduced. The most positive air quality and climate change impact would be achieved with a shift to hybrid and electric buses.

## BETTER ALTERNATIVES?

Reducing the cost of public transport would probably make it more attractive to some passengers. But, spending more on making travel cheap/free will mean being able to spend less on subsidising new or additional routes, increasing frequencies, or providing segregated routes.

## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

- Many people may think that it sends the wrong signals if car driving is cheaper than public transport.
- Around 43,000 people in Cambridgeshire have no access to a car, and they are more likely to be in low income households. Reducing the cost of public transport would be a big benefit for them, particularly those on the lowest incomes.
- It will be expensive. Making public transport free for everyone (even those who can easily afford it) takes away money that could be targeted at improving speed, frequency, or route coverage for those who are most reliant on public transport.

## YOUR NOTES

# MAKING BUSES FASTER, MORE RELIABLE

Improving the services that already exist



## WHAT IS IT?

Making existing bus services faster compared to the equivalent car journey. This means reducing the number of cars on the road (so that buses can get through more quickly and reliably) or segregating public transport entirely. This cannot be achieved without enabling measures.

## WHY WOULD WE DO THIS?

For most journeys to work in Greater Cambridge, car is a more competitive choice (when time and money costs are combined), so it is no surprise when people choose car. People tell GCP that journey time and reliability are major factors in their decisions.

## REDUCE CONGESTION?

Has the potential to substantially reduce the number of car trips – but only if the journey time and reliability improvements can actually be achieved. Without creating space for them (by reducing traffic on the roads, or segregating routes) this is unlikely.

## REDUCE EMISSIONS?

A big shift to bus with no new vehicles introduced would have a positive impact. If new vehicles were introduced, impacts would depend on the emissions levels of the new buses introduced. The most positive air quality and climate change impact would be achieved with a shift to hybrid and electric buses.

## BETTER ALTERNATIVES?

Reducing journey times and improving reliability would have a very positive impact on the quality of service provided.

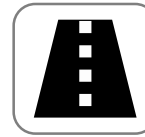
## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

- This can only be carried out if space is created for buses to run faster.
- Around 43,000 people in Cambridgeshire have no access to a car, and they are more likely to be in low income households. Improvements to public transport would have a positive and important impact on them.
- This would only benefit people in areas currently not served by public transport if they were able to access park and ride sites to get onto the bus network, or if additional money was made available to add new or better routes to the existing network.

## YOUR NOTES

# ON-DEMAND RURAL TRANSPORT

Shuttle minibus to nearest station or park and ride



## WHAT IS IT?

Replacing and/or supplementing current rural bus routes with an on-demand service, probably called through an app or phone. To be workable, it would probably drop people at their nearest station / park and ride site (not at their final destination).

## WHY WOULD WE DO THIS?

Subsidised rural bus services are very expensive. They are also usually infrequent and slow. The cost per passenger trip is usually much more than the equivalent taxi ride would have cost. Minibus shuttle transport could be cheaper and provide better service.

## REDUCE CONGESTION?

Probably positive. It would remove some cars and (often mostly empty) rural buses from the roads in the centre. People would be dropped at a park and ride or station, contributing to existing services running with more passengers.

## REDUCE EMISSIONS?

The air quality impacts of removing (often mostly empty) rural buses from roads in the centre would be positive. If electric vehicles were used, and some passengers switched from car onto these buses the impact could be positive, but it would be dependent on service and mode shift specifics.

## BETTER ALTERNATIVES?

It is likely that a service could be provided that is better and cheaper than the current system of scheduled rural bus services. Connecting people into park and ride sites or existing stations (and, in future, the CAM metro) would provide more passengers to those services, making them more financially viable.

## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

- This has the potential to have a big positive impact on those living in rural areas without access to a car, and also to those who find the cost of car ownership and operation a financial burden.
- However, many people may feel negatively about the removal of regular, scheduled rural bus services, and lots of marketing would be required to ensure people know about the new service.
- Some older residents and those on very low incomes may not have access to a smartphone which may exclude them from an app-based on-demand network. This would issue would diminish quickly for older people (as smartphone uptake is high amongst middle aged and early retirees), but may always be a problem for the lowest income.

## YOUR NOTES



# ADDING NEW BUS ROUTES

New routes, more frequent services or extended hours



## WHAT IS IT?

Likely to include a combination of adding new routes to serve areas that currently are not served by bus routes; providing more frequent services on existing routes; or extending hours of operation to cater for those working non-standard hours or shift patterns.

## WHY WOULD WE DO THIS?

Many people simply do not have a public transport option available to them at the moment so they have no choice other than to use car.

## REDUCE CONGESTION?

Impact would depend on the focus of new services, and how many passengers use them. A focus on serving smaller communities that are isolated by a lack of PT may have less of an impact on congestion – because it would add buses to an already congested network without removing many cars.

## REDUCE EMISSIONS?

Air quality and carbon impacts would be highly dependent on the new vehicles introduced. Air quality could actually worsen if older, dirtier vehicles were used, but would very much improve if clean vehicles were used.

## BETTER ALTERNATIVES?

This would have a positive impact on the quality of public transport service offered. The extent to which it was positive would depend on how competitive journey times could be made with the comparable car journey. For rural services this is sometimes difficult.

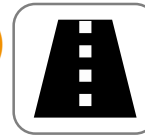
## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

- In areas where there is simply no PT provision this is particularly difficult for those that cannot access a car and can lead to social isolation and cause a barrier to employment.
- There are choices to be made about whether to focus improvements on people that currently have poor service and may be isolated (maximise social benefit) or on, for example, adding more frequent services to a route that is already covered for bigger communities – which might have a bigger congestion impact.
- Unless space is created on the roads, new services will sit in the same traffic queues as cars.

## YOUR NOTES

## MORE PARK & RIDE (P&R) / PARK & CYCLE (P&C)

Open more P&R sites and/or provide P&C facilities



### WHAT IS IT?

Making more park and ride capacity available, especially where existing sites are full or near to capacity (e.g. Trumpington) or where new public transport infrastructure is planned. Providing secure parking provision for cycles so people can park and cycle.

### WHY WOULD WE DO THIS?

It is unaffordable to run a network where everyone can travel door-to-door on public transport. For those that cannot avoid driving for the first part of their journey, park and ride can offer people another option and stop all of those cars entering the busiest parts of the city.

### REDUCE CONGESTION?

Likely to have a positive impact overall. GCP analysis suggests a small reduction in the number of car trips into the city. But most sites are not currently used to full capacity so there may also be a need to incentivise their use.

### REDUCE EMISSIONS?

Likely to be have a positive impact overall, but scale of impacts would also be dependent on new buses being low emission vehicles.

### BETTER ALTERNATIVES?

'Collecting' drivers to one location to board the bus helps to make public transport routes financially viable by decreasing the number of areas that need to be served.

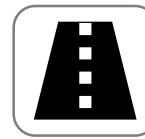
### THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

- Park and ride (and park and cycle) provision is a pragmatic way to serve people who come into the City from further afield who may not have good PT options for their full journey.
- This does not help those in rural areas without access to a car.
- Those working shift work or irregular patterns find it harder to use park and ride if they need to travel before or after timetabled services run.

### YOUR NOTES

# INVEST MORE IN CYCLING AND WALKING

Make it easier, safer and more pleasant



## WHAT IS IT?

There are various ways that the cycling infrastructure could be improved: investment in safer routes across the city; bike share schemes (including electric and cargo bikes); secure cycle storage.

## WHY WOULD WE DO THIS?

Supporting walking and cycling can have very substantial public health, wellbeing and air quality impacts as well as removing traffic from the roads.

## REDUCE CONGESTION?

A large scale shift to walking and cycling would have a big impact on congestion. The extent to which this can be achieved will depend on the quality of the provision. Quality provision requires reallocating road space from cars, and supporting measures such as cycle parking.

## REDUCE EMISSIONS?

A large scale shift to walking and cycling would have a positive impact on air quality and carbon emissions. Both because of the reduction in car use, but also because it avoids the need for additional buses to be run.

## BETTER ALTERNATIVES?

The provision of good cycling and walking infrastructure is an improvement in its own right and can enable a shift to public transport journeys by providing good connections to bus stops and stations. Initial costs may be substantial for high quality provision. Some ongoing maintenance funding is required, but much less than public transport services.

## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

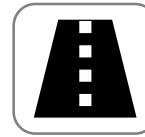
- Cycling rates are already relatively high for the UK within the City itself – but less so for South Cambridgeshire where people are usually travelling longer distances to work. What scope is there to increase cycle mode share for these people?
- Not everyone will be able to walk and cycle: although with good planning, cycling can be made accessible to many of those with mobility impairments or disabilities; in some cases more so than car.
- A GCP travel survey showed cycling was the most commonly chosen alternative people said they would use if driving in and around Cambridge became more difficult.

## YOUR NOTES

# ENABLERS

# CLOSING ROADS TO CARS

Restricting cars in certain lanes, roads or zones



## WHAT IS IT?

Simply not allowing some vehicles to travel down some roads, or through some zones (e.g. pedestrianisation, or bus / cycle only routes). A more moderate version is to reduce speeds, or take away lanes to reduce rather than exclude traffic.

## WHY WOULD WE DO THIS?

Arguably, the simplest and most effective way to reduce traffic in a certain location is to ban or restrict it. This creates space for buses to run more quickly, and for top quality walking and cycling infrastructure to be provided.

## REDUCE CONGESTION?

GCP analysis suggests that to meet traffic reduction targets without displacing traffic elsewhere would require radical closures. Individual road or small zone closures may lead to cars being displaced elsewhere rather than an overall reduction.

## REDUCE EMISSIONS?

Would be strongly positive for the areas subject to closures (assuming no new dirty buses are introduced). This could be partially or fully offset by traffic being displaced to other routes and air quality worsening there. Overall impacts will depend on the extent of the road closures.

## BETTER ALTERNATIVES?

Likely to allow existing buses to travel faster and more reliably where road space is reallocated to buses. This could be wholly or partially offset if traffic bottlenecking on the approach to bus lanes increased delays elsewhere on the network where buses are not yet separated.

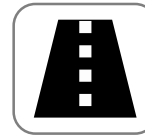
## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

- Unlike charging, this does not impact differently dependent on income.
- It does not provide the revenue stream to support any additional bus services.
- Radical closures would place restrictions on individual choice – particularly for the people living inside the closure zones. Exemptions may be needed for disabled people reliant on cars.
- Arrangements would need to be made for delivery and emergency service vehicles.
- Positive impacts for public realm, walking and cycling and consequently wellbeing, health and quality of place. But if cars are displaced to other areas, it could make things worse elsewhere.

## YOUR NOTES

# RESTRICTING OR REMOVING PARKING

Prohibiting parking and/or removing parking spaces



## WHAT IS IT?

There are several ways of practically restricting parking: more double yellow lines; creating resident parking zones to stop workers, shoppers or hospital visitors parking on nearby residential streets; remove or downsize car parks or on-street bays; restrict the provision of parking in new developments.

## WHY WOULD WE DO THIS?

Reducing parking availability forces people to choose other modes because they will have nowhere to park their car at the end of a journey, or keep a car at home.

## REDUCE CONGESTION?

This would be likely to reduce car travel, but only for drivers that use public car parks. Currently this is mostly leisure, shopping and hospital visitors (not commuters). GCP analysis suggests this might get 1-2% of city centre traffic off the roads depending on the price.

## REDUCE EMISSIONS?

If there were a substantial reduction in car traffic this would likely have a positive impact on air quality. Some of this impact may be offset if there is increased circulation of cars looking for parking.

## BETTER ALTERNATIVES?

If there were a substantial reduction in car traffic it could support faster and more reliable public transport. The extent would depend on the level of traffic reduction. But it would not provide any revenue for new services. Revenue may even decrease if council car parking is removed.

## THINGS TO CONSIDER *(some starting points for discussion – you may be able to think of more)*

- Provision would need to be made for disabled people who may disproportionately rely on cars.
- Many nurses, healthcare assistants and hospital cleaning staff who are often on lower pay and antisocial hours currently use on-street (free) parking in neighbourhoods near Addenbrookes.
- Restricting parking in new development means those that live or work in new developments bear the 'pain' of changing whilst those in older houses and jobs can continue unaffected.
- Restricting parking can be very unpopular with the general public: both current users of the free parking, and residents.

## YOUR NOTES

# CLEAN AIR ZONE (CAZ)

Charging the most polluting vehicles (but not cars)



## WHAT IS IT?

Imposing a charge on the most polluting vehicles in areas with poor air quality. If places choose, the charge can be set high enough to be an effective ban. A CAZ usually applies to HGVs, buses, vans and other large, dirty vehicles. Could be combined with, or separate from, a flexible charge.

## WHY WOULD WE DO THIS?

This is primarily targeted at improving air quality. It aims to reduce (or exclude) the vehicles which emit the most pollutants and increase the speed at which businesses adopt clean vehicles.

## REDUCE CONGESTION?

Likely to have minimal impact on congestion in the city centre. Some bus, van and HGV traffic may be removed, but not necessarily as businesses simply replace older vehicles with newer, cleaner ones.

## REDUCE EMISSIONS?

Likely to be strongly positive. The scale depends on charge rates, eligibility and zone. The majority of emissions that contribute to poor air quality in the city centre come from the largest vehicles.

## BETTER ALTERNATIVES?

May produce a small amount of short term funding for better public transport, walking and cycling infrastructure in the short term but net revenues are likely to be low and as vehicles clean up, fewer will pay the charge. It is unlikely to create much additional road space.

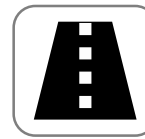
## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

- A charge is likely to fall disproportionately on smaller businesses (who are more likely to have older vehicles and not be able to afford to upgrade or retrofit their fleet).
- A Clean Air Zone that did not include cars (just buses and HGVs) would mean that users of public transport were asked to contribute to the cost of reducing poor air quality (because costs would be passed on to passengers through ticket prices) whilst car drivers were not.

## YOUR NOTES

# POLLUTION CHARGE

A Clean Air Zone including the most-polluting cars



## WHAT IS IT?

This is a hybrid approach between a flexible charge and a Clean Air Zone. A pollution charge would apply to HGVs, buses and vans in the same way as a CAZ: the difference is that the most polluting cars would also pay. In the first few years, many cars would be liable to pay a pollution charge. Over time, fewer would be liable as people gradually switch to newer, cleaner vehicles..

## WHY WOULD WE DO THIS?

This is targeted at *both* air quality and congestion/mode shift, aiming to reduce car use but also to encourage people and businesses to invest in cleaner vehicles.

## REDUCE CONGESTION?

GCP analysis suggests this could have more impact on congestion than a standard Clean Air Zone, but less than a flexible charge (because the cleanest cars are exempt). Impact would depend on where the definition of 'clean' cars was set.

## REDUCE EMISSIONS?

This may have a greater impact on emissions than a flexible charge because it would discourage use of dirtier cars, and incentivise the purchase of cleaner vehicles. However the major impact on emissions would come from a shift to cleaner buses and HGVs, which could be achieved by a CAZ alone.

## BETTER ALTERNATIVES?

Public transport would benefit from more road space as the most polluting cars are deterred. Income from a charge would allow more services or new routes to be supported, or improvements in walking and cycling provision: but less than a flexible charge where all vehicles are liable to pay.

## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

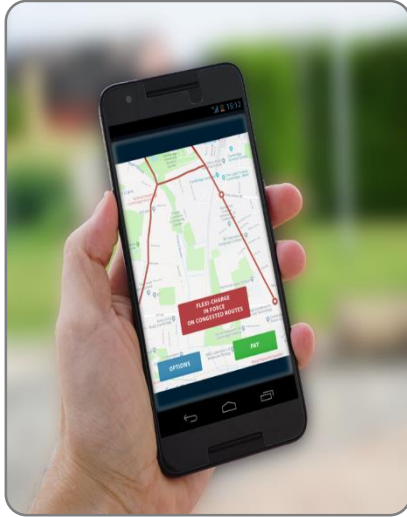
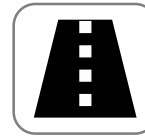
- Many of the same considerations apply as for the flexible charge and for a CAZ.
- For a pollution charge, it is likely that those who are exempt through having a newer, cleaner vehicles will be those on the higher incomes, and that the charge would be more likely to fall on those with lower or medium incomes.
- However, investing in public transport could partly or wholly offset this, given the poorest are most likely to rely on public transport, or be financially burdened by the need to run a car.

## YOUR NOTES



# FLEXIBLE CHARGE

Charging for driving when roads are congested



## WHAT IS IT?

Charging drivers for using roads when congestion is bad. Charges can vary depending by time, day or location. Certain vehicles or people can be exempt. In the near future technology may allow charges to vary to reflect 'live' traffic conditions. Could be combined with, or separate from, a Clean Air Zone.

## WHY WOULD WE DO THIS?

This is primarily targeted at reducing congestion: to free up road space for buses, walking and cycling and provide revenue to invest in better, cleaner and more sustainable transport options.

## REDUCE CONGESTION?

Of the measures considered, GCP analysis suggests this is likely to be the most effective measure for reducing car traffic, and (depending on charge rate) the only measure that could meet traffic reduction targets alone, without other demand management measures.

## REDUCE EMISSIONS?

Likely to be strongly positive overall. The scale depends on the specific scheme definition. The majority of emissions benefits come from larger vehicles; which could be achieved by a CAZ alone. There may be a slightly weaker incentive to switch to clean vehicles if all vehicles are liable to pay.

## BETTER ALTERNATIVES?

Public transport would benefit from more road space as cars are deterred meaning journeys would be faster and more reliable. The income from a charge would allow more frequent services or new routes to be supported, or support improvements in walking and cycling provision.

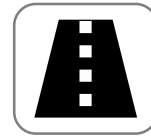
## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

- For people who choose to drive even when they have good alternatives, a charge means they cover some of the costs they impose on others (air quality, congestion, time delay). In return. they would benefit from less congested journeys.
- It will impact hardest on those on low incomes – although those on the lowest incomes are much less likely to own cars, or incur financial stress from having no choice but to run a car.
- However, investing in public transport could partly or wholly offset this, given the poorest are most likely to rely on public transport, or be financially burdened by the need to run a car.

## YOUR NOTES

# WORKPLACE PARKING LEVY

Charging businesses for their parking spaces



## WHAT IS IT?

Putting a charge on businesses for each parking space that they own and use for their employees, business vehicles or visitors. Charges could apply to all spaces, or just to spaces that are occupied.

## WHY WOULD WE DO THIS?

EITHER to raise revenue, OR to encourage businesses to reduce the number of parking spaces they offer (in either case a monthly or annual charge is most appropriate), OR to persuade people out of their cars (in which case a daily charge depending on occupancy is more appropriate).

## REDUCE CONGESTION?

This would have some impact on congestion, but GCP analysis suggests much less than a pollution charge or flexible charge. It would depend how many businesses passed the cost to employees, and whether empty spaces were charged (in which case, there is less disincentive to driving).

## REDUCE EMISSIONS?

To the extent that this reduced congestion, it would have positive impacts on air quality and carbon emissions. There is no direct incentive to move to lower emissions vehicles, and it does not address the biggest source of emissions: HGVs, buses and vans.

## BETTER ALTERNATIVES?

Positive impacts. It would be likely to take some cars off the road to allow buses to travel more quickly into and across the city, although this effect may not be large. It would also generate funds that could be reinvested in improving public transport.

## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

- If small businesses were included in a WPL scheme it may disproportionately impact them. Independently owned businesses of any size may struggle to absorb additional costs more than chains or corporates.
- Businesses have control of whether to pass on the charge to their employees, which can limit the extent it affects people's travel choices. In Nottingham, around 40% of businesses pass on the cost.
- There may be longer term positive impacts where businesses are encouraged to sell off or redevelop their car park sites (e.g. for new employment or housing) which could affect travel choices in the longer term, but are hard to predict.

## YOUR NOTES

# INCREASE PARKING CHARGES

Charge (or charge more) for council-operated parking



## WHAT IS IT?

Increasing the cost of council car parking. This may include charging for on-street parking as well as increasing the price of off-street parking (car parks).

## WHY WOULD WE DO THIS?

Making car journeys cost more may deter people from driving and make other modes more attractive.

## REDUCE CONGESTION?

This would be likely to reduce car travel, but only for those drivers that use public car parks. Currently this is mostly leisure, shopping and hospital visitors (not commuters). GCP analysis suggests this might have a minor impact on city centre traffic depending on price.

## REDUCE EMISSIONS?

To the extent that this reduces congestion, it would have positive impacts on air quality and carbon emissions (depending on what mode people switch to). This could be partly offset by an increase in cars circling looking for free or cheaper parking (if no on-street parking controls were introduced).

## BETTER ALTERNATIVES?

May be slight positive impacts – it will take some cars off the roads (but probably not enough to make a big difference to bus journey times). It would generate a moderate amount of money that could be reinvested in improving public transport.

## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

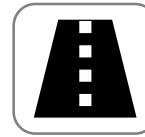
- City centre parking has become more expensive in recent years (and traffic levels are still high).
- Leisure and shopping visits are most likely to be affected (because most commuters do not use public car parks). These types of journeys are less likely to be undertaken at peak times. So the cost would be borne by those that are not causing the biggest problems, and may not have much of an impact at the most congested times of day.

## YOUR NOTES

# **SUPPORTING AND SYSTEM MEASURES**

# OPTIMISE TRAFFIC SIGNALS

Making the network run better



## WHAT IS IT?

Adjusting traffic signals to give priority to public transport, cyclists and pedestrians over cars, or just to make the network run more smoothly overall.

## WHY WOULD WE DO THIS?

To make best use of the available space by timing signals to ensure traffic flows smoothly. More efficient flow of cars through the lights also gives more time and space for cyclists and pedestrians to be released early. Signals can be adjusted to prioritise certain types of traffic (buses, cycles or pedestrians).

## REDUCE CONGESTION?

GCP analysis estimates this may help traffic flow in some problem locations, but that it will not have any appreciable impact on overall road capacity or traffic speeds. Cars may wait longer if other modes are prioritised. If overall traffic levels were lower, this impact would be less.

## REDUCE EMISSIONS?

If standing time is reduced at signals emissions will be reduced, although impact on air quality would be small compared to reducing vehicles on the road and a move to zero and low emission vehicles. Emissions could increase if cars are idling longer as other modes are prioritised. If overall traffic levels were lower, this impact would be less.

## BETTER ALTERNATIVES?

In principle signals can be adjusted to prioritise buses, cyclists and pedestrians over cars. In practice, buses can only be prioritised where there are bus lanes to allow them to overtake cars - which is not the case in most of the city centre and on many of the main roads into the city.

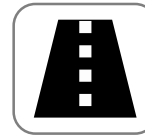
## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

- Optimising traffic signals in favour of cyclists and pedestrians (and, where space allows, buses) could have beneficial impacts for them even if congestion is not reduced overall. In the longer term this may support a shift to walking, cycling and bus.
- In which case this would largely be achieved at the expense of car drivers – and may increase car congestion if it prioritises other users.
- This may also have positive safety benefits at junctions.

## YOUR NOTES

# CAR SHARING

Reducing cars traffic by helping people to share



## WHAT IS IT?

Reducing the number of cars on the road by getting more people to share vehicles. There are various ways this can be achieved - ranging from simply 'facilitating' (providing information, or matchmaking services for car shares) through to various incentives: carpool lanes, exemption from charges etc.

## WHY WOULD WE DO THIS?

Four people travelling in their individual cars take more space than four people sharing one car. If they shared, the same number of people could travel by car with much less congestion.

## REDUCE CONGESTION?

Evidence suggests it is very difficult to impact congestion with carpooling unless there were an extensive network (not just one or two isolated lanes). There could be some positive impact on congestion but it would likely be very small.

## REDUCE EMISSIONS?

Impacts would depend on whether sharers would previously have used car or bus. If bus, no impact. If car, there would be positive impacts. But the scale is likely to be small.

## BETTER ALTERNATIVES?

Effectiveness would depend on whether sharers would previously have used car or bus. If car, reduced number of cars on the road would improve bus speeds. If bus, there may be no fewer cars on the road, but fewer bus passenger, undermining financial viability of bus services.

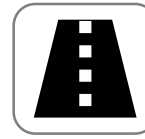
## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

- Individuals may make their own financial arrangements to share costs which could be individually beneficial.
- Lower travel costs may disproportionately help those on lower incomes - but only to the extent it is successful, and GCP analysis does not suggest a big take-up.
- Many people say that they might be interested in car sharing but find it hard in practice to coordinate with others, or lose the flexibility of solo travel.

## YOUR NOTES

# TRAVEL PLANNING

Developing strategies for reducing car use



## WHAT IS IT?

Working with employers, schools or individuals to support information provision on alternative modes to car, and helping them to develop strategies to minimise car use. Some organisations may be able to provide private employee services or subsidise fares.

## WHY WOULD WE DO THIS?

Organisations are best placed to understand the travel patterns, and time constraints of those travelling to them, and will have data on home locations of their employees/students. This means they can make detailed and bespoke recommendations and plans.

## REDUCE CONGESTION?

No additional service provision is guaranteed, although larger schools and employers may provide private shuttle services. Mostly this will be incremental measures. These are important, but unlikely to make a step change to congestion levels overall without wide participation.

## REDUCE EMISSIONS?

Likely to be small positive impact, depending on scale and nature of shift to other modes.

## BETTER ALTERNATIVES?

Likely to be small, depending on impact on mode shift, and whether or additional services are provided. If there are new private services, there is a risk they take passengers away from regular buses and make it harder to run viable buses.

## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

- If this promotes walking and cycling it could have substantial public health benefits – but only if the right environment is in place to make it safe and attractive.
- Privately operated public transport shuttle services may take away passengers (and revenue) from the public transport network. This could have the unintended consequence of reducing the availability of public transport for everyone else.
- There is some evidence that there can be larger impacts when many large organisations get involved.
- Can incentivise people to try out newly provided services or infrastructure.

## YOUR NOTES

# ELECTRIC VEHICLE CHARGING NETWORK

Invest in a comprehensive network of charge points



## WHAT IS IT?

Investing in a network of publicly available electric charge points for all vehicles, with the intention of speeding the shift to clean vehicles. Charging would be available to the public, either paid at point of use or through account.

## WHY WOULD WE DO THIS?

The (in)ability to charge an electric vehicle is often cited as a major barrier to widespread adoption of electric and plug-in hybrid vehicles.

## REDUCE CONGESTION?

This would have no impact on congestion in the city centre without being combined with other measures to manage demand.

## REDUCE EMISSIONS?

Depending on its success in spurring faster take-up of electric vehicles, this could have a big impact on the emissions from cars. However, the majority of emissions come from HGVs, buses and vans and less is known about whether the absence of charge points is a barrier for commercial vehicles.

## BETTER ALTERNATIVES?

This would not provide either road space or funding for improving public transport, walking or cycling, unless combined with other measures.

## THINGS TO CONSIDER *(some starting points for discussion – you may be able to think of more)*

- This would have up-front costs, dependent on whether government support is available. In the long term it might generate funding which could be used to fund public transport, walking or cycling improvements, but may take time to pay back the initial investment.
- Although electric vehicles are emissions free at point of use (in Greater Cambridge) the global carbon and air quality impacts will depend on the electricity generation mechanism.
- There will be practical issues around compatibility of charge points and cars, and which technology to adopt, but these could likely be worked through.

## YOUR NOTES



# OTHER WAYS OF RAISING REVENUE

Raising taxes rather than imposing charges



## WHAT IS IT?

There are various other ways that revenue could be raised, none of which are within the direct control of GCP. For example, council tax or business rates could be increased.

## WHY WOULD WE DO THIS?

To avoid introducing new charges whilst raising revenue to support better public transport.

## REDUCE CONGESTION?

This would have no direct effect on reducing congestion. To the extent that better public transport services support mode shift away from car this may indirectly reduce congestion. Without creating road space, this impact is likely to be small.

## REDUCE EMISSIONS?

No direct impact on air quality. May have some indirect impact. These are likely to be small.

## BETTER ALTERNATIVES?

Likely to have a positive impact by providing funding for improved public services, however without creating additional road space to speed up services the impact will be limited.

## THINGS TO CONSIDER (some starting points for discussion – you may be able to think of more)

- Decisions on taxation are outside of the GCP's direct control.
- To raise council tax by more than a small increment (3%), local councils must hold a referendum.
- Only 50% of business rates are retained locally to spend on public transport improvements. The remainder is collected by central government for redistribution.
- Money from general taxation cannot be easily ring-fenced for transport. There are many competing priorities for local governments, due to substantial budget cuts in the last decade.
- This makes non-transport revenue sources less certain as a means of supporting improvements.

## YOUR NOTES

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