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Formal response to the GCP's consultation on a new road classification for Cambridge

Camcycle is a volunteer-led charity with over 1,600 members working for more, better and safer cycling for all ages and abilities in the Cambridge region.

We support the principle of a hierarchy and know the importance of having such a framework in place to enable the change required within our city. It is clear however that the current work undertaken is not ambitious enough and fails to put people at the centre of decision making. Below we provide an alternative way to progress the hierarchy.

Manual for Streets defines a street as a:

'highway that has important public realm function beyond the movement of traffic. Most critically, streets should have a sense of place, which is mainly raised through local distinctiveness and sensitivity in design. They also provide direct access to the buildings and the spaces that line them. Most highways in built-up areas can therefore be considered a street.'

Based on this definition, all the highways within the scope of this work should be classified as streets. The only exception to this should be the inclusion of the National Highways network (A14, M11) which should be considered within the hierarchy as these roads serve to direct traffic to the appropriate route into the city, as well as facilitating journeys within the city itself by acting as a ring road.

Streets must be designed to balance the needs of diverse users in order to shape an attractive environment that ensures access, safety, comfort and enjoyment. This requires a street to follow the user hierarchy (design first for pedestrians, then cyclists, then public transport, then specialist service vehicles and finally private cars). A road classification map that considers only private car movements is of little use if it does not build on coherent route maps for walking, cycling (being developed through the LCWIP) and buses (some initial development undertaken in Making Connections). The categorisation of streets as proposed is primarily car-focused and fails to consider the needs of each user. Unless a user-based approach is taken consistently, we will not achieve the step-change in provision for active travel and public transport which is needed to induce a high modal shift away from private cars.

The proposed hierarchy also fails to consider the wider functions of the street. These functions are greatly varied and unique. All the functions are interlinked, yet often conflict with and compromise each other. A street is ultimately defined by the complex interplay between these functions.

For a user-based hierarchy, walking, cycling, bus, specialist service vehicles and private vehicles should each be provided with detailed mapping of their specific routes. Once this exercise is complete, the movements can be overlaid to understand the specific needs of each user within the street, ultimately allowing for it to be designed in a way that meets these needs.

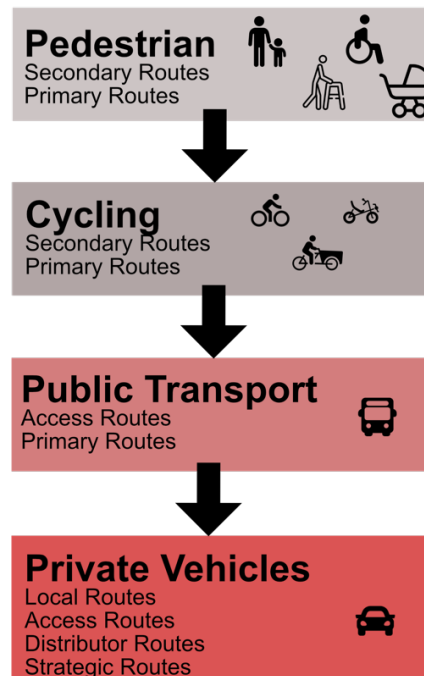
Place and movement are often considered the most important of the principles when determining the character of the street. Very active streets often have a strong sense of 'place', but also perform a key movement function, with the two in constant competition. In this way, they can be considered on a sliding scale between movement and place.

In the past words such as 'Movement' would too often be viewed from a vehicular perspective and 'Place' from a people's perspective. This has led to the marginalisation of other users when considering mobility, restricting the ability to make better places because of the pressures that occur owing to the prevailing car-centric approach. The hierarchy needs to consider not only movement and place but also the variety of users.

Effective management of dominating users (cars, vans and service vehicles) is a necessary consideration of design, as the effective management of these users in the street scene ultimately allows for greater protection for vulnerable users, resulting in more inclusive design.

A Proposed Hierarchy

Below is a potential hierarchy that can be applied for each user. We would welcome working through amendments and revisions with stakeholders and other parties.



Pedestrians

A pedestrian hierarchy needs to cater for people of all ages, sizes and abilities. Therefore, the design of streets needs to satisfy a wide range of requirements. The designers will also need to consider vulnerable pedestrians with mobility or cognitive impairments. Wheelchair users and people using prams/pushchairs are also considered pedestrians. Journeys undertaken on foot require a highly permeable network, with local amenities within walking distance as many journeys on foot will be under 2 miles. Much of this route work has been undertaken in the LCWIP but needs to be considered now in the context of the wider scheme.

Primary walking routes make up the majority of the network, these would typically be where a through-route is situated along a key desire line and links into a range of attractors such as schools, colleges and employment sites. Some primary routes will have significantly higher pedestrian flows than others and their design will have to be adjusted accordingly.

Secondary walking routes provide quick and convenient access onto the primary network. They would typically link footways through urban areas with low usage and on short estate roads to the main road and cul-de-sacs.

Beyond movement, the pedestrian user hierarchy could include a healthy street score, bus stops, public bins, bin obstruction, peak flow, air quality, route condition and walking amenities e.g. toilets, water stations.

Cyclists

In urban areas, the distance from any household to a primary cycling route should typically be 250–400m, but this might increase in outer suburbs where the density of development is lower. Much of this route work has been undertaken in the LCWIP but needs to be considered now in the context of the hierarchy.

Primary routes are to cater for high flows of cyclists, typically travelling to or from key destinations such as schools, employment sites, key amenities, and the city centre. The primary routes will make up the connected grid (250-400m) that is vital to a successful cycle network. Therefore primary routes will be both radial and orbital routes. Some examples of primary routes are: Histon Road, the busway, Chisholm Trail and Gwydir Street.

Secondary routes catering for lower flows will form the connection between primary routes and local feeders, such as small employment areas and local centres, and will connect cyclists to the primary network.

Public transport

Primary routes should be designed in such a way as to improve public transport journeys and reduce the impact on other users. Primary routes will be the key public transport corridors into the city.

Access routes will cater for a small number of bus services that may operate within neighbourhoods. Due to the efficiency of the public transport within the key corridors the attraction of these routes is often limited. These services can however make use of modal filters within the network to improve the user experience. Many of these services might be on-demand transport, such as dial-a-bus.

Private vehicles

Strategic routes (A14,M11) provide vehicular access to the key entrances into the city. Wherever possible, journeys on the strategic network should be promoted over internal journeys as they have less impact on the city and its residents. Therefore, it is proposed that a number of journeys between different parts of the city should be required to use the strategic network to reduce traffic on the internal roads. The network should also be utilised to ensure that journeys concluding within the city enter at the junction closest to the destination.

Distributor routes will provide a similar movement function as indicated by the consultation document for what it describes as primary and secondary distributors. They will be the main roads for traffic moving to and from the centre and to connect to smaller streets. They can be used by all (residents, commuters & visitors) and all vehicle types. They will link to the M11 & A14 and have generally no restrictions on access.

Access routes will provide access to, from and within large areas of the city, linking distributor routes to local streets. They should not allow movements between distributor roads for private cars.

Local routes will provide a similar function to those described by the consultation document as neighbourhood streets. They provide vehicular access to properties in local areas where vehicle speeds should be reduced as much as possible to allow other functions of the street to flourish.

Junctions and intersections

Understanding the movements of each user in this way allows designers to correctly prioritise the primary routes in future schemes. For example, primary walking routes should be designed with priority over local vehicle routes, which means designs that promote pedestrian priority e.g. continuous footways, Dutch kerbs and Copenhagen crossings. Primary cycle routes should have priority over access vehicle routes which means designs that promote cycle priority e.g. parallel crossings and continuous cycle tracks.

Streets are places

This proposed hierarchy can be applied across the city to understand the movement function but, as mentioned previously, the place function of the streets needs to be considered in greater detail. The current approach to place within the document is misguided, with 'typical place characteristics' being identified alongside road classifications and in the most part being focused on parking and speed limits, with mention of potential opportunities for green space as an afterthought.

Much of this can be achieved through a healthy streets review, which could be done systematically across the city by residents who can benchmark how existing streets perform and begin to highlight areas of improvement.

Applying the hierarchy to streets

Continental Europe offers examples and inspirations that show us how we can utilise a hierarchy to have greater control over vehicle movements and by doing so promote sustainable alternatives. One of the best examples of this, which is also most relevant due to its size is Ghent, which controls the vehicle movements of its 300,000 residents through a circulation plan. Introduced in 2017 it has transformed transport and improved liveability. It was delivered in under three years and for less than €5 million. Below are some of the key statistics:

- One weekend to complete the physical implementation of the Circulation Plan
- 60% increase in cycling
- 55% increase in public transport
- 35% fewer accidents
- Improved air quality
- Journeys by young people now 50% bike, 20% foot.
- Car ownership per household falling (1.2 per household - 2015, 1.0 per household - 2021)
- 15% of paved areas replaced with greenery and landscaping
- Vehicular concessions for restricted mobility residents
- 71% of residents in the inner city say it is a more pleasant place to live

In Ghent they made the radials 'access only' as a means to enter or leave a neighbourhood: if you want to cross the city by car you need to leave the neighbourhood at its outer edge and drive around the periphery leaving the inner roads for active travel.

The Ghent plan is designed to ensure public transport, commercial and disabled access but always with a view to keeping public spaces public by use of flexible filtering. The new space freed from motor traffic means wider footways, more green space, reliable buses and, paradoxically, better neighbourhood parking. Each neighbourhood forms a zone with car access only from the edges, the 'spoke' roads becoming a mix of one-way, reduced-width roads.

To deliver such a plan in Cambridge would require breaking up the internal ring road for private cars. The consultation makes little reference to the ring road, mentioning it only once. Yet from attending various engagement processes we know that the internal ring road has governed and constrained the proposals significantly. Conversations over the use of the strategic network may require working with National Highways and DfT, but this work must be undertaken. We know that the strategic network (A14, M11) is currently utilised by people making journeys between different parts of the city, and whilst encouraging such use may generate some additional journeys we also know that many journeys will evaporate and be replaced by walking, cycling and public transport.

Therefore, we call for bold leadership to consider breaking up the internal ring road and allowing for the public to consult on specific circulation plans that allow for this. If the internal ring road is to remain, then it needs to be provided in a disjointed and

indirect fashion to ensure it does not incentivise excessive use or attract through-traffic. We have explored this in the mapping below.

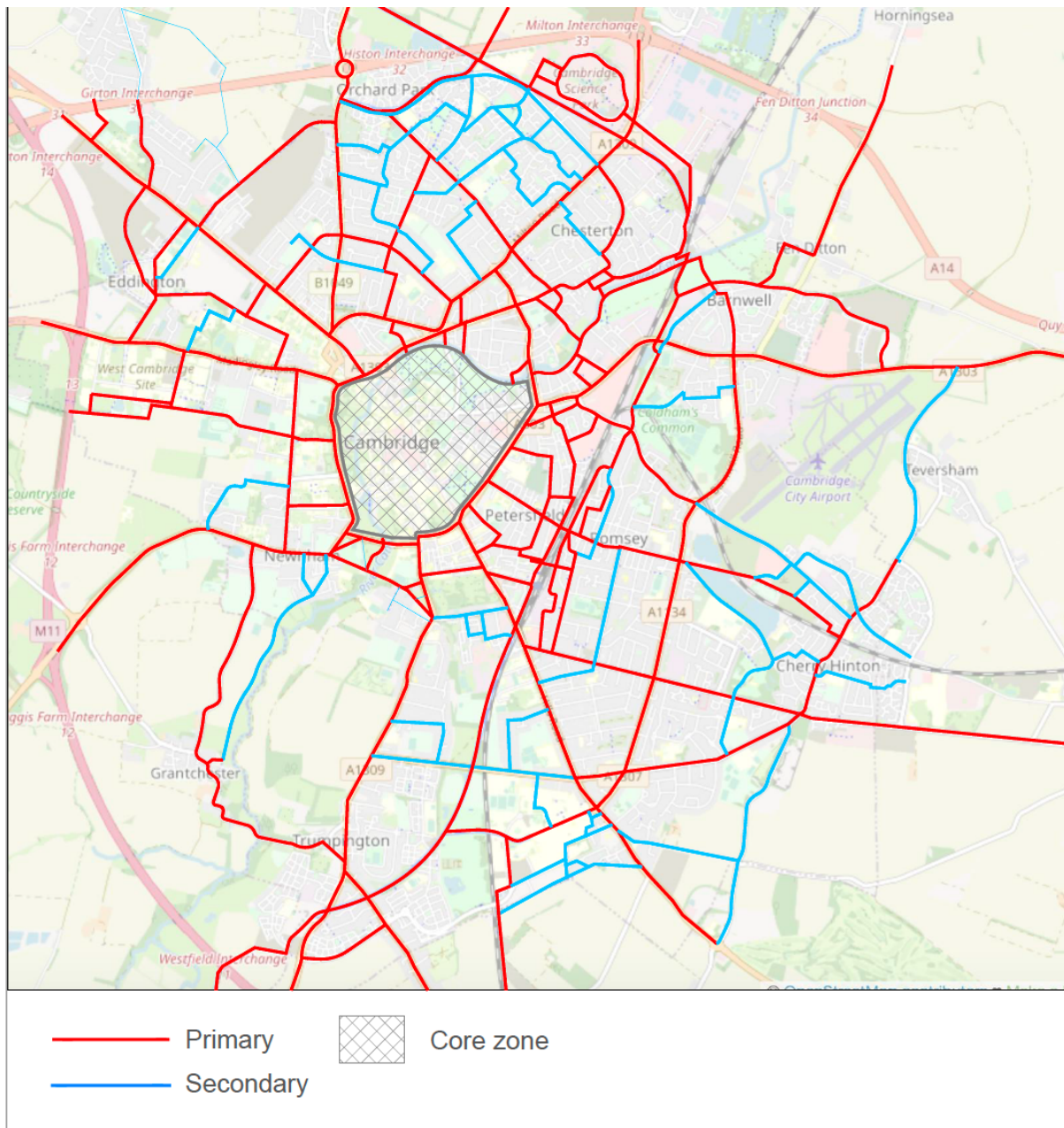
Working with our members we have completed some examples of how the mapping for each user group could be undertaken. The base mappings for pedestrians and cycles need to build on the Local Cycling and Walking Infrastructure Plan and the public transport needs to build on the Making Connections report. Our work has a strong focus on vehicular movements as this has the greatest potential to benefit active travel and public transport. Below we have included these maps to show some of the various options available and some discussion of the pros and cons of each option.

Pedestrian hierarchy plan



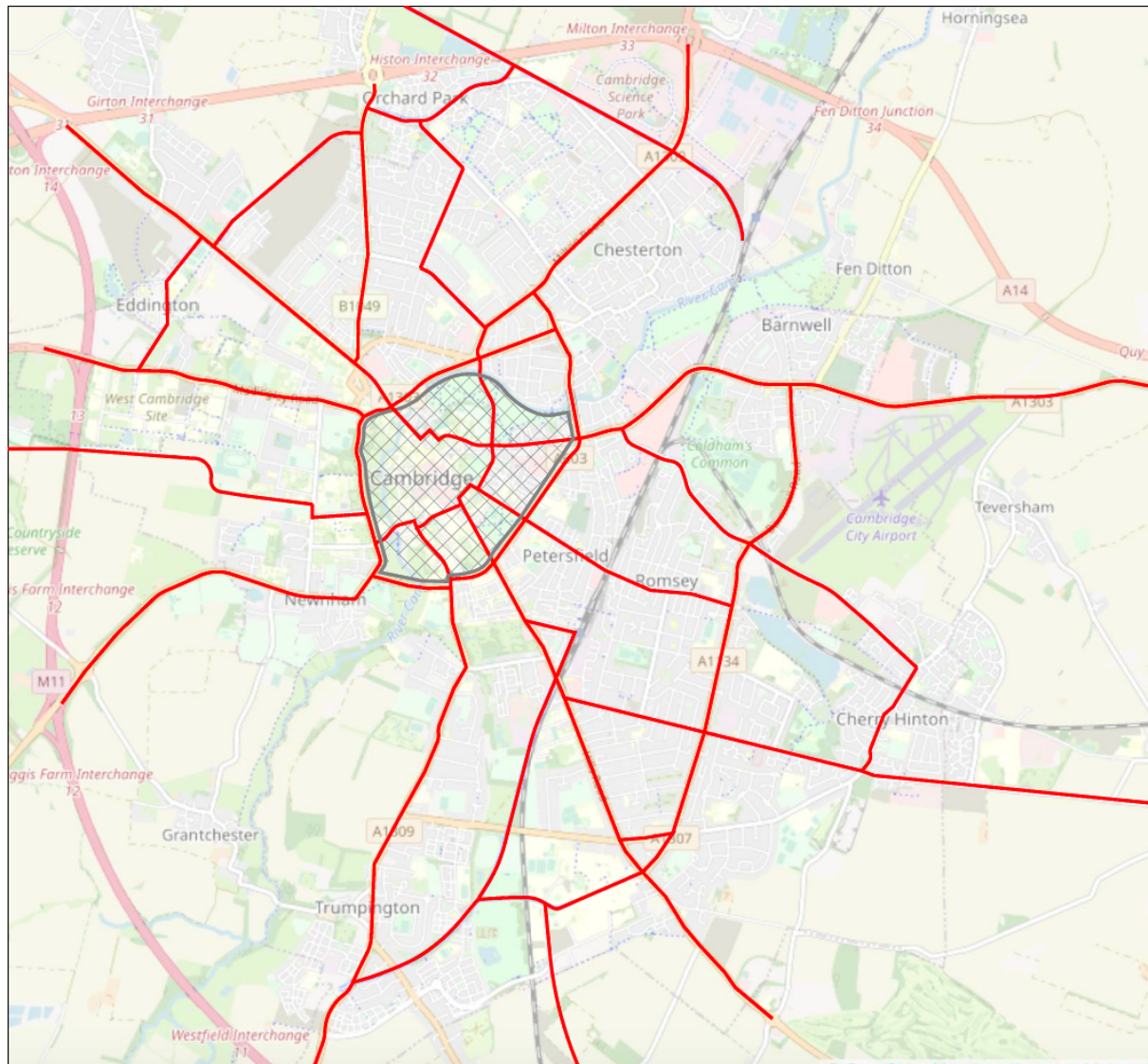
Above is an indicative pedestrian hierarchy plan, which has been compiled to show the high density of primary walking routes across the city. At this stage, due to the sheer number of routes we have only marked out the primary routes. The remaining routes will be secondary. Many of these routes have been neglected by the existing proposals as the function of the street has only been considered from a vehicular perspective. The assessment should be extended to include a healthy street score, bus stops, public bins, bin obstruction, peak flow, air quality, route condition and walking amenities e.g. toilets, water stations. Significant work remains to develop this hierarchy with stakeholders.


Cycle (active travel) hierarchy plan



Above we have taken the cycle map from the LCWIP and coded it into primary and secondary routes. Work will need to be progressed and the map reviewed in detail, at this stage it is shown as a starting point. The assessment should also include quiet route, direct route, healthy streets score, maintenance plan, route condition, wayfinding, peak flow, air quality and cycling amenities e.g. toilet, water, bike store, bike parking (secure and non-secure). Significant work remains to develop this hierarchy with stakeholders.

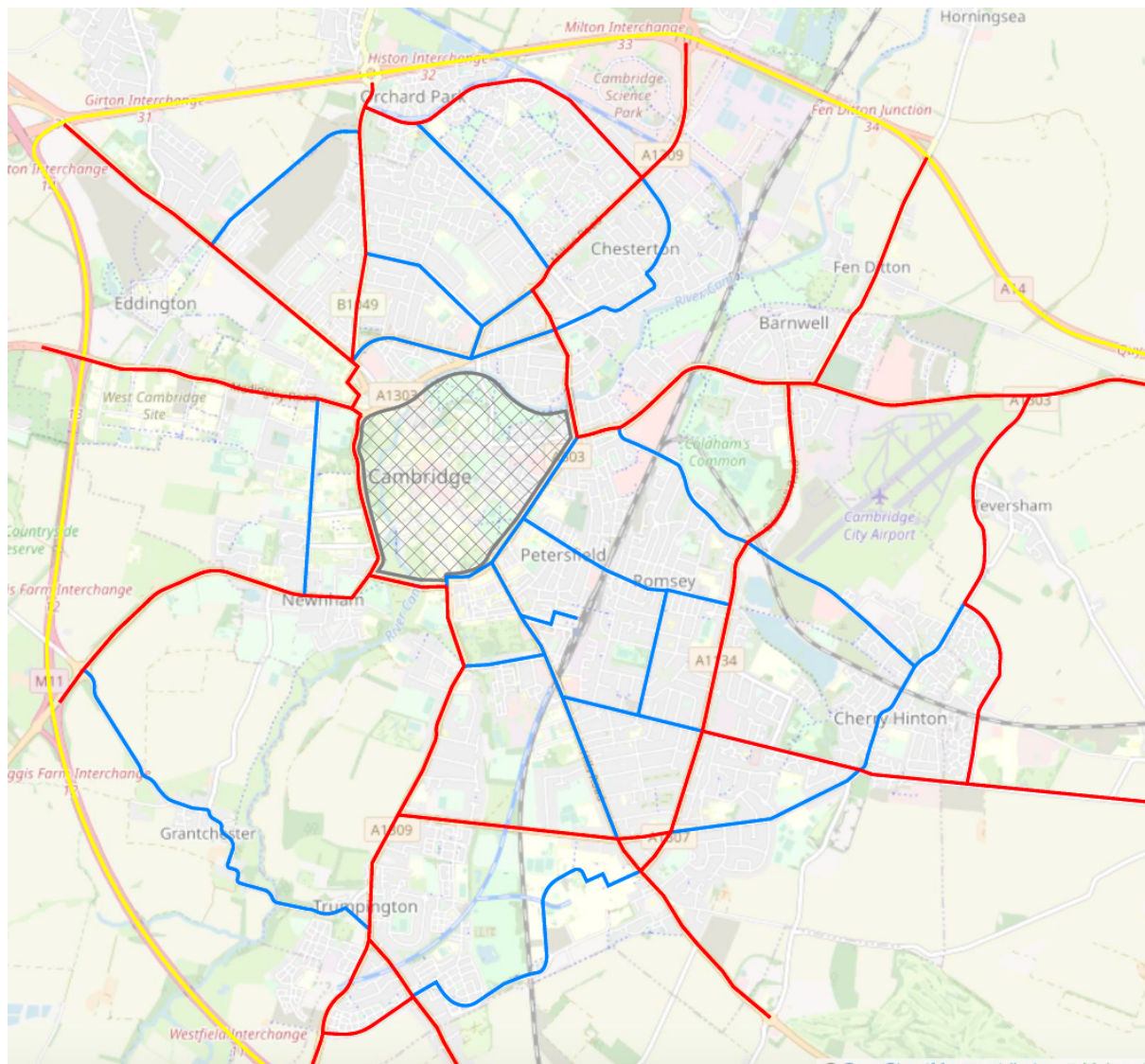
Public transport plan



— Primary  Core zone

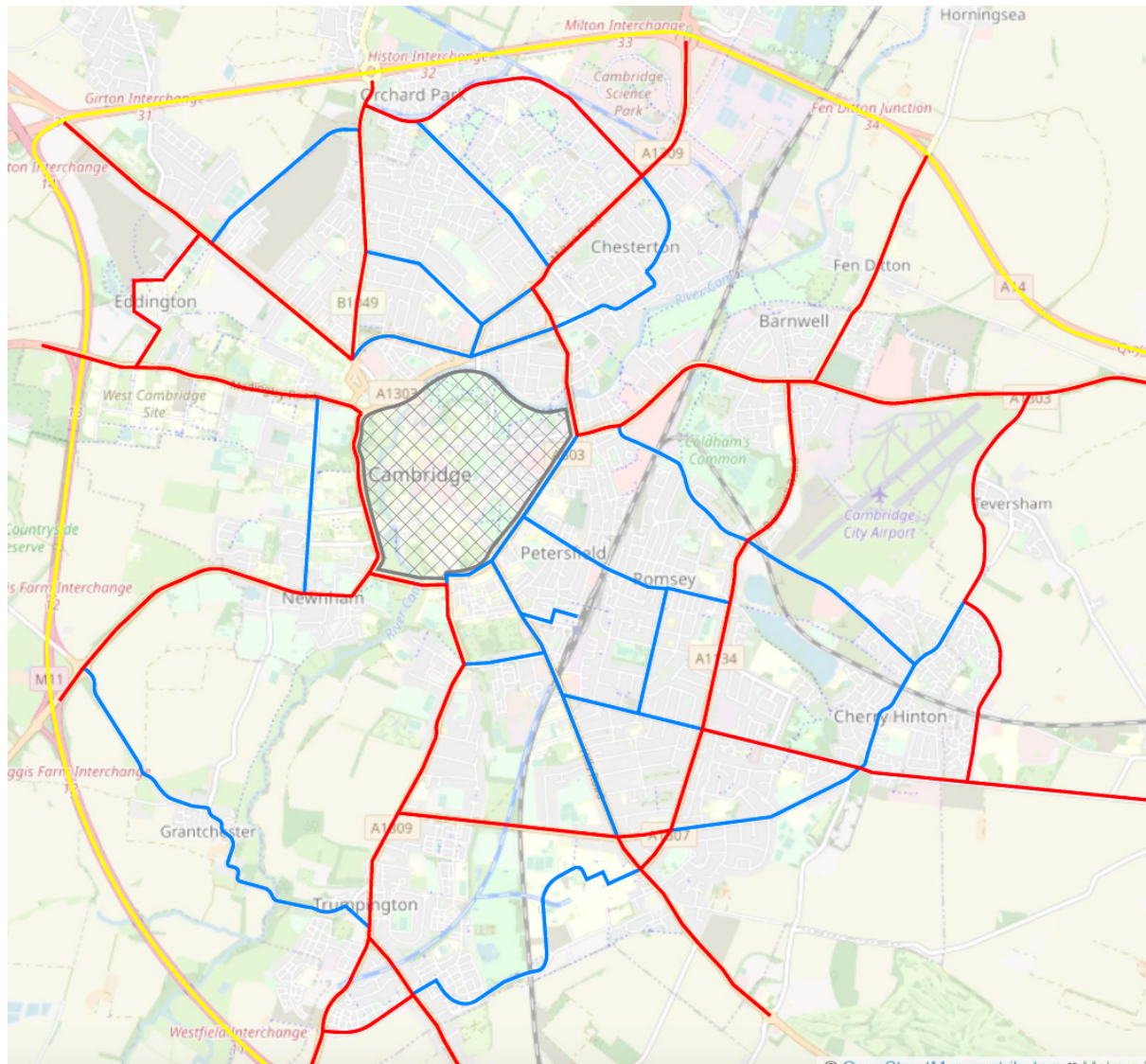
Above we have marked out the primary bus corridors which we have based on the work undertaken in the Making Connections document. Again, this is shown only to highlight the principle. The assessment should also include bus stop location, bus stop provision, links to active travel network, bus provision score and toilets.

Private Car plans



- Strategic
- Distributor
- Access
- Core zone

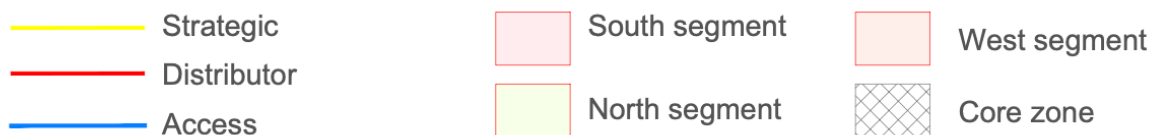
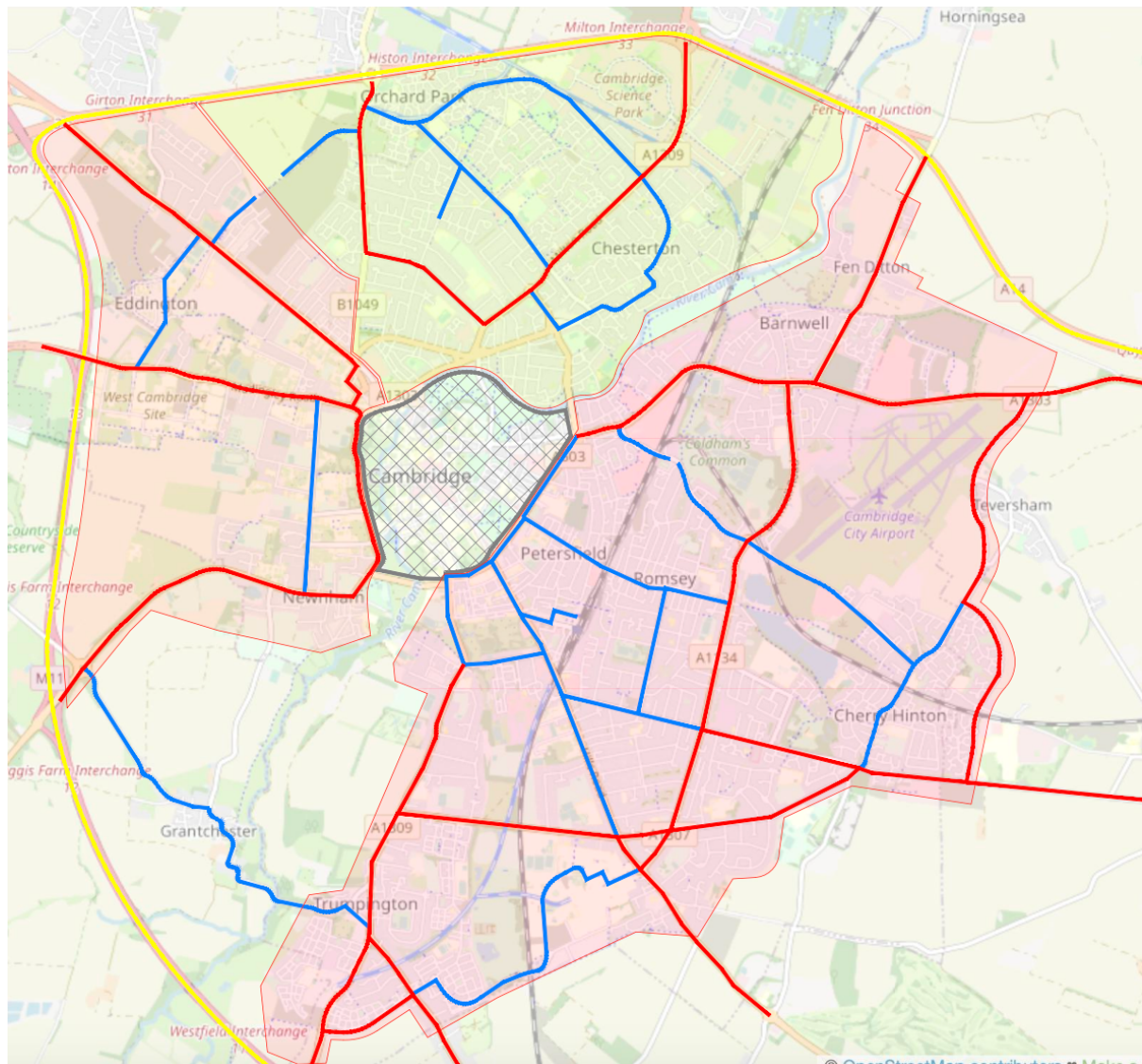
Option one is similar to the proposed plan but has removed Victoria Road as a distributor and replaced it with Kings Hedges Road, which is better suited for large traffic volumes and less direct. It provides an unbroken, indirect internal ring-road that is purposefully designed to deter vehicular journeys within the city. Because the ring road is unbroken, the scheme does not rely on using the strategic network. Whilst it is an improvement on the current proposals, this plan still allows for many short journeys in the city to be undertaken directly by private car. For example, from Chesterton to Newmarket Road.



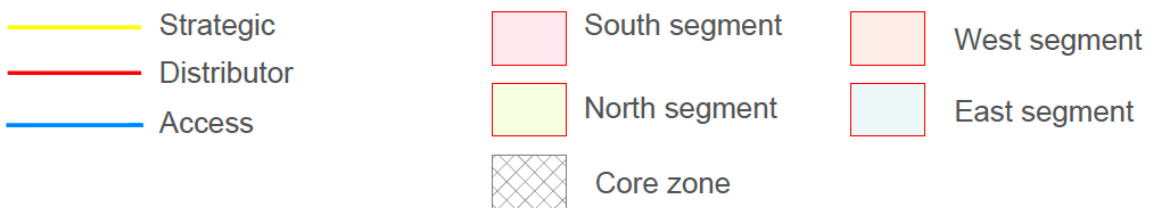
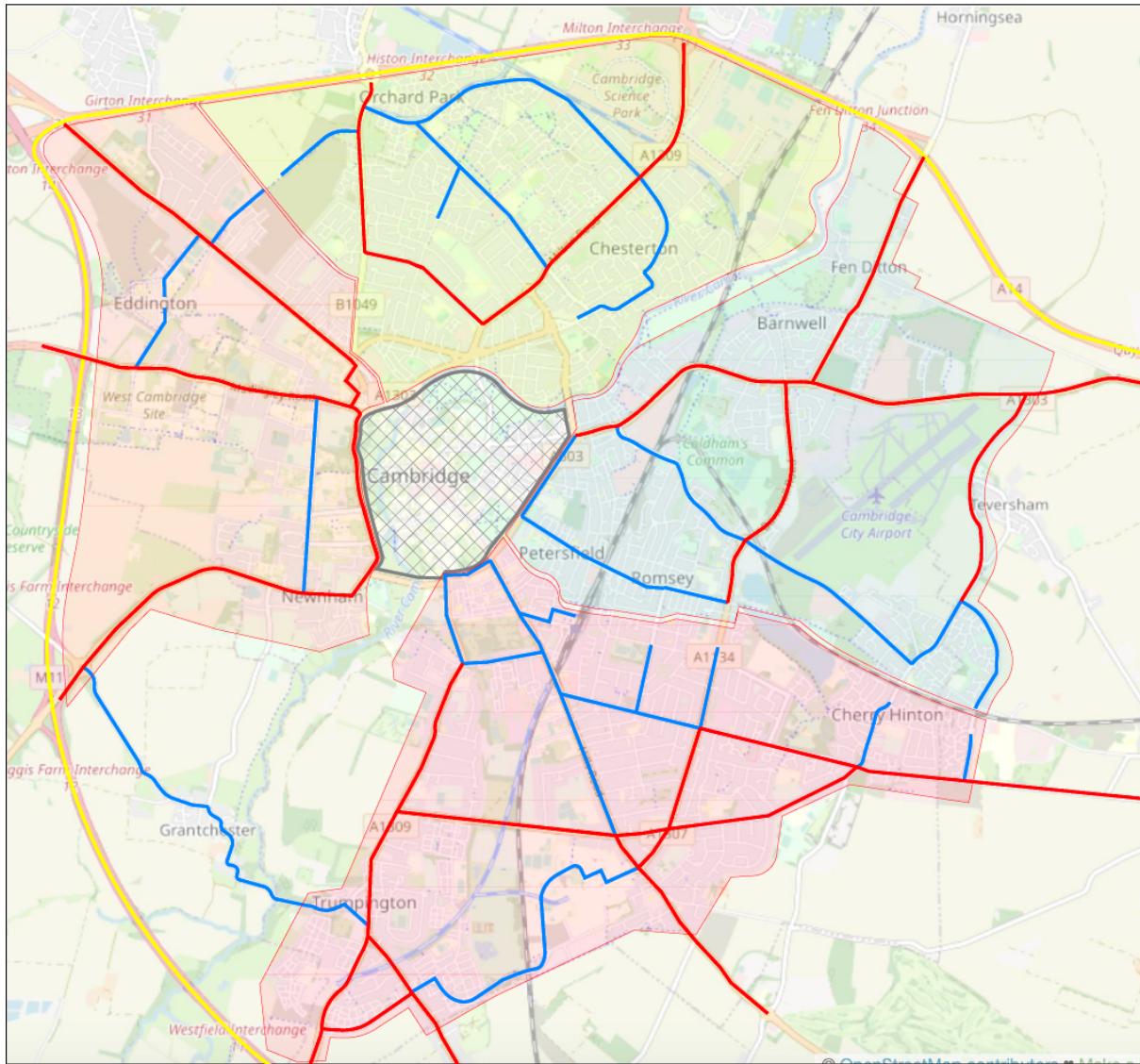
- Strategic
- Distributor
- Access
- Core zone

Option two is identical to option one apart from the distributor route along Lady Margaret Road and Mount Pleasant being replaced by Turing Way. This means the internal ring road becomes fragmented further, deterring vehicular journeys in the city, and Lady Margaret Road and Mount Pleasant become low traffic areas, however traffic levels will likely increase in Eddington. As per option one many short journeys in the city can be undertaken directly by private car. For example, from Chesterton to Newmarket Road.

As part of this work option, we also explored using Northampton Street or Storey's Way as alternative routes to Lady Margaret Road; however from an initial review these look less suitable.



Option four breaks the concept of the internal ring road, requiring journeys between the different segments to utilise the strategic network. Option four is broken into three segments. Each segment is provided with at least two accesses onto the strategic network, this is partly for increased resilience and also due to some junctions limiting certain movements. As no strategic roads border the south side of the city option 4 provides one large south segment in which private car drivers can travel between J35 on the A14 (Stow Cum Quay) and J11 on the M11 (Trumpington), utilising the distributor routes. Modal filters between the segments will have a range of exemptions that need to be considered in greater detail, they could also have time controls which should be in line with when the bus service frequency drops. These filters must also be designed to accommodate exceptional events (roadworks, accident-induced jams etc).



Option six provides an additional segment in the north of the city and shifts around some of the segment boundaries. This will reduce the traffic on Queen’s Road, and the additional segment will further deter private cars from undertaking short journeys in the city. Some of the segments have only one access to the strategic network, but emergency routing could still be undertaken through flexible modal filters. Modal filters between the segments will have a range of exemptions that need to be considered in greater detail, they could also have time controls which should be in line with when the bus service frequency drops. These filters must also be designed to accommodate exceptional events (roadworks, accident-induced jams etc).

These six options begin to show what is possible with a hierarchy plan and greater control and restriction of shorter journeys within Cambridge. We urge you to engage with stakeholders and undertake wider discussions with a variety of plans available for discussion and open dialogue about the benefit of and impact on local residents.

These are only the initial stages of the hierarchy for private cars. We know that work is required to consider items such as exemptions, time restrictions, residents parking, visitor car parking, key car parks, park and rides, congestion charging, workplace parking and car amenities e.g. petrol, air, servicing.

Unlike congestion charging, a road hierarchy that restricts short driving journeys is more equitable, where all people are treated equally and the true cost of driving within the city is realised. In contrast, a congestion charge alone would adversely affect poorer households and allow things to continue as normal for wealthier residents.

Core Zone

The core zone has been marked on the plans above and generally excluded from the hierarchy plans. This is due to the complexity that exists in the centre and many of the characteristics of the hierarchy cannot be directly applied to the core zone. As indicated in the consultation document, there is a pressing need to make the city centre people-focused as well as dealing with the more constraining issues such as bus routing and car-park access.

Plan 2 in the consultation document implies that the egress route from the Grand Arcade car park will be via Tennis Court Road rather than, as now, via St Andrews Street and Regent Street. Whilst there is a strong argument in favour of making this change, it is not spelt out in the consultation brochure. It is critically important to consult openly and honestly about changes, such as this, that will have significant and wide-ranging ramifications. Not least of these will be that westbound cycles will have to mix with cars on Downing St between Corn Exchange Street and Tennis Court Road. It also appears that the one-way section of Tennis Court Road would be reversed, as Fitzwilliam Street is not shown (for good reason) as an access street. That will in turn affect the flow of traffic on Lensfield Road.

Bus stations, stops and key routes need to be identified and planned before classifying roads for general traffic. The consultation brochure acknowledges the need to re-route some buses. The classification of Regent St, Emmanuel St, Hobson St and Park Terrace as 'Civic streets' entails that they will no longer be used by most bus services: "Buses not normally allowed; smaller buses could be allowed access to link to the wider bus network." But there is no specific proposal for what routes buses will follow instead. This should be progressed in the public transport hierarchy plans we have discussed above.

The consultation brochure makes just a single mention of 'bus station' (in the context of reversing buses conflicting with pedestrians). Where will bus and coach stations be located in future? As the consultation brochure acknowledges, there is no room to expand the current bus station. There is no coach station in the city, and the current

'temporary' provision alongside Parker's Piece is completely inadequate, with minimal waiting facilities, no toilets, and no refreshments available nearby.

Smarter Cambridge Transport proposed a solution of assigning a counter clockwise bus loop around Northampton Street, Queen's Road, Lensfield Road, Gonville Place, East Road Maid's Causeway and Victoria Avenue. This, or some variation of this it will probably be the only way to avoid large buses conflicting with people walking and cycling around the Civic Streets in the city centre. The private vehicular hierarchy we propose supports this thinking, by ensuring traffic is kept off the potential route of the bus loop. We have undertaken further work, which we can share with you, to understand how through buses utilising such a loop will not only reduce the reliance on a city centre bus station, but also create new direct journeys across the city, for example from Longstanton to Sawston.

Conclusion

The written ambition laid out in the consultation document is a step in the right direction and acknowledges that making short vehicular journeys less direct and convenient will be needed to prioritise the needs of people using our streets and journeys and by sustainable transport. However, the hierarchy and methodology used fails to meet this ambition.

We urge the GCP to be open to discussing alternative schemes and methodologies with stakeholders and residents. These groups should be involved in developing a plan, not commenting on a static proposal. It is clear that strong action and political leadership is required to bring forward a more ambitious plan. All of the GCP's constituent councils have declared a climate emergency which should mean rapid, determined action to cut emissions from transport within the Greater Cambridge area and move to solutions which are compatible with the net zero future that is needed.

It is also vital that the hierarchy is considered and consulted alongside other key projects. The current proposals are presented in a fragmented way that makes it almost impossible for normal residents to understand how projects are interlinked.

The work must begin to identify timelines and objectives in greater detail, particularly in terms of linking up with documents like the Local Transport and Connectivity Plan. There is a risk that the hierarchy will become a static document that will ultimately restrict improvements, much like the current hierarchy has done, therefore greater flexibility is required.

Finally, we support the development of a future vision, much like the vision presented by Living Streets in their consultation response. This vision should paint a picture of how a future Cambridge will look thanks to the hierarchy. And provide a clearer picture for residents of how the changing transport network can support their lives and work. Progress against this vision should be tracked to ensure that the plan delivers the ambitious change that is required.