GREATER CAMBRIDGE PARTNERSHIP

Growing and sharing prosperity

Delivering our City Deal

15 February 2019

To: Members of the Greater Cambridge Partnership Joint Assembly:

Councillor Dave Baigent	Cambridge City Council
Councillor Nicky Massey	Cambridge City Council
Councillor Tim Bick	Cambridge City Council (Vice Chairperson)
Councillor Tim Wotherspoon	Cambridgeshire County Council (Chairperson)
Councillor Noel Kavanagh	Cambridgeshire County Council
Councillor John Williams	Cambridgeshire County Council
Councillor Ian Sollom	South Cambridgeshire District Council
Councillor Peter Topping	South Cambridgeshire District Council
Councillor Eileen Wilson	South Cambridgeshire District Council
Heather Richards	Transversal
Jo Sainsbury	iMET
Helen Valentine	Anglia Ruskin University
Christopher Walkinshaw	Cambridge Ahead
Dr John Wells	Cancer Research UK Cambridge Institute
Andy Williams	AstraZeneca

Dear Sir / Madam

You are invited to attend the next meeting of **GREATER CAMBRIDGE PARTNERSHIP JOINT ASSEMBLY**, which will be held in the **COUNCIL CHAMBER, GUILDHALL, CAMBRIDGE** on **WEDNESDAY, 27 FEBRUARY 2019** at **2.00 p.m.**

Requests for a large print agenda must be received at least 48 hours before the meeting.

AGENDA

		PAGES
1.	**Apologies**	
2.	**Declarations of Interest**	
3.	**Minutes of Previous Meeting** To authorise the Assembly to sign the Minutes of the meeting held on 15 November 2018 as a correct record.	**1 - 20**
4.	**Questions from Members of the Public**	**21 - 22**
5.	**Petitions**	
6.	**Budget Setting 2019/20 and Quarterly Progress Report**	**23 - 44**
7.	**GCP Future Investment Strategy**	**45 - 50**

Democratic Services Contact Officer: Democratic Services 03450 450 500 democratic.services@scambs.gov.uk

8.	**A10 Foxton Level Crossing Bypass and Parking at Foxton Rail Station**	**51 - 56**
9.	**Cambridge Biomedical Campus Transport Needs Review** The following background documents are available online: • Cambridge Biomedical Campus Transport Needs Review – Part 1 • Cambridge Biomedical Campus Transport Needs Review – Part 2 • Cambridge Biomedical Campus Transport Needs Review – Part 3 • Cambridge Biomedical Campus Transport Needs Review – Non-Technical Summary	**57 - 88**
10.	**The Chisholm Trail**	**89 - 96**
11.	**Milton Road: Bus, Cycling and Walking Improvements - Final Design**	**97 - 136**
12.	**Rural Travel Hubs**	**137 - 144**
13.	**Date of Next Meeting** To note that the next meeting will be held on Thursday 6 June at 2pm in the Council Chamber at South Cambs Hall in Cambourne.	

GREATER CAMBRIDGE PARTNERSHIP

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GREATER CAMBRIDGE PARTNERSHIP JOINT ASSEMBLY

Minutes of the Greater Cambridge Partnership Joint Assembly
15 November 2018 at 2pm

PRESENT:

Members of the Greater Cambridge Partnership Joint Assembly:

Councillor Tim Wotherspoon	Cambridgeshire County Council (Chairperson)
Councillor Tim Bick	Cambridgeshire City Council (Vice Chairperson)
Councillor Dave Baigent	Cambridge City Council
Councillor Nicky Massey	Cambridge City Council
Councillor Noel Kavanagh	Cambridgeshire County Council
Councillor Ian Sollom	South Cambridgeshire District Council
Councillor Peter Topping	South Cambridgeshire District Council
Councillor Eileen Wilson	South Cambridgeshire District Council
Jo Sainsbury	iMET
Christopher Walkinshaw	Cambridge Ahead
Dr John Wells	Cancer Research UK Cambridge Institute
Andy Williams	Astrazeneca
Heather Richards	Transversal

Members or substitutes of the Greater Cambridge Partnership Executive Board in attendance:

Councillor Ian Bates	Cambridgeshire County Council
Councillor Aiden Van de Weyer	South Cambridgeshire District Council
Claire Ruskin	Cambridge Network

Officers/Advisors:

Peter Blake	Transport Director, GCP
Niamh Matthews	Head of Strategy and Programme, GCP
Rachel Stopard	Chief Executive, GCP
Kathrin John	Democratic Services, South Cambridgeshire District Council
Victoria Wallace	Democratic Services, South Cambridgeshire District Council
Alison Norrish and Joanna Rowell	Arup
Jo Baker	Mott MacDonald

1. APOLOGIES

Apologies for absence were received from Helen Valentine and Councillor John Williams.

2. DECLARATIONS OF INTEREST

Councillors Baigent and Kavanagh each declared a non-pecuniary interest as members of the Cambridge Cycling Campaign.

3. MINUTES OF PREVIOUS MEETING

Apologies for absence were received from Helen Valentine and Councillor John Williams.

4. QUESTIONS FROM MEMBERS OF THE PUBLIC

10 public questions had been received. These related to agenda items 6 and 8 and would be taken at the relevant agenda items.

5. PETITIONS

No petitions had been received.

6. CAMBOURNE TO CAMBRIDGE BETTER PUBLIC TRANSPORT PROJECT

The GCP Transport Director gave a short presentation setting the Cambourne to Cambridge proposals in the context of the wider City Access proposals.

Helen Bradbury, Chairman of the Cambourne to Cambridge Local Liaison Forum (LLF) summarised the outcomes of the LLF meeting which had taken place on 14th November 2018:

- The LLF requested that the Joint Assembly allowed two weeks between the meeting papers being published and the Joint Assembly meeting taking place, to allow more time for input to be provided by the LLF.
- The LLF noted that the GCP was taking forward a route and alignment that was most opposed in the public consultation and which the LLF had advised against.
- The LLF supported the principle of tunnels but was concerned about their deliverability.
- The LLF felt that the GCP's preferred route did not serve commuters from Cambourne and Bourn and would only benefit a small proportion of people.
- The preferred off-road route provided poor connectivity; it did not provide effective links to the Biomedical Campus or the Science Park. A northern route would provide better connectivity.
- The LLF technical group expressed concern that the benefit cost ratio (BCR) was one tenth of what was normally expected of public transport schemes.
- It was felt that journey times were not significantly better than on-road alternatives.
- There was concern about Mott MacDonald's environmental assessment which the LLF felt was based on a poor understanding of the importance of the wider landscape setting of the city and heritage implications within the city. The LLF asked for an independent assessment of each to be completed before the full EIA and HIA at Planning stage.

- The LLF requested to see the full Arup report that had looked at and dismissed an alternative northern route.
- The LLF requested that a panel of experts independent from the GCP, assess the economic, environmental and transport implications of the scheme.
- The LLF had:
    1. Recommended that no decision be taken on a preferred route until greater clarity on the CAM was provided; the proposed network, connectivity and funding. It was felt that the off-road bus route due to its poor connectivity to the Cambridge Biomedical Campus (CBC), Science park and the city centre, its poor transport benefits and low BCR, did not stand up to scrutiny.

    2. Noted that there was only one route that was compliant with CAM. It asked that a northern off-road option be developed. It was felt that there could be major advantages to this; it could better connect with the Oxford Cambridge Expressway and developments at the Girton Interchange in the longer term, and could link with the Science Park, CBC and the North West Cambridge site.

    3. Recommended that, given the lengthy timescale involved in building an off-road scheme, an in-bound bus lane be designed on Madingley Road immediately. This would provide significant public transport benefit to the residents west of Cambridge.

Dr Marylin Treacy, Allan Treacy, James Littlewood, Roger Tomlinson, Alistair Burford and Dr Gabriel Fox were invited to ask their public questions. The questions and a summary of the responses are provided at Appendix A of the minutes.

The GCP Transport Director presented the report which provided an update on progress with developing the business case for the A428 Cambourne to Cambridge (C2C) Better Public Transport project. Attention was drawn to the timescale of the project. An Executive Board decision on the outline business case would be sought in Autumn 2019, following a formal public consultation. There was a clear alignment between the preferred scheme and the CAM. It was recognised that an on-road scheme had less impact on the greenbelt than the off-road scheme. It was highlighted that the specific route alignment was still under development.

Councillor Topping queried whether there would be sufficient time for the outline business case for this route, to take account of the Combined Authority's strategic business case. The route needed to be consistent with the longer term aspiration for the CAM. Given the immediate need, he suggested that an on-road solution would be deliverable more quickly, cost significantly less and would allow more time for a longer term CAM system to be developed. The GCP Transport Director pointed out that the GCP recognised the challenge of delivering very large projects and that the phasing of delivery was important. This would be addressed in the strategic business case. Officers would look at options for potential interim short term solutions and report back on this.

Councillor Sollom raised concerns about the off-road route. He queried:

- The Red Amber Green [RAG] scoring of the public acceptability in the Mott MacDonald report, which did not reflect that the off-road option was not favoured by the public.
- The significant difference of the wider economic benefits between the schemes and asked how these calculations had been reached. He suggested that more detail be provided about this.

- Why the northern route had been rejected when the Arup report suggested that it had been competitive. He felt this route had greater potential to link to the wider network, fit better with wider project objectives, had far greater local support and should therefore be looked at again.

Councillor Sollom requested:

- Further consideration and detail of the wider heritage aspects across the whole of the off-road option, not just focussing on the SSSI.
- That extensive landscaping be included in the mitigations.
- An explanation of why the on-road route did not open up the sites in the Local Plan to the same extent as the off-road route.
- That two CAM compliant schemes be compared.
- An interim on-road solution be worked on.

Councillor Sollom commented that residents in the area understood the need for a segregated route and to develop a scheme that connected communities such as Cambourne and Bourn, with employment centres in the city. However they did not think the solution presented was the best option and there was no evidence of other options being presented. He felt that trust had broken down between the GCP and stakeholders.

Councillor Bick expressed support for the proposals and hoped the Executive Board would move forward with them. He stressed the importance of the GCP providing a first class public transport system to enable residents of existing and future new developments outside the city, to access Cambridge city. The recommended route was not predicated on the CAM and it was likely the GCP would still be looking at this option without this.

Andy Williams commented that travel routes that were reliable, regular and offered a journey time of 30 minutes or less from Cambourne to Cambridge city centre, CBC and the Science Park, was the step change businesses were seeking. The current public transport journey time of 90 minutes from Cambourne to CBC, was not acceptable to businesses or employees. The GCP needed to aim for an aspirational scheme. He commented that the 30 minute journey times outlined in the report via the preferred route, were not reliant on the CAM or tunnelling. He suggested that the aspirations of each scheme needed to be made clear in future reports.

Heather Richards suggested Madingley Road cycling improvements could be a quick win and should be focussed on.

Councillor Baigent supported the proposals. He pointed out that the arguments for a northern route had already been listened to, the route had been discounted and he felt that this should not be revisited. Madingley Road could not be expanded to the extent that was needed to accommodate the commuting traffic from existing and future new developments outside the city.

Jo Sainsbury suggested a need for transparency and summary of the discussions that had already taken place on this scheme. Access to past reports should be ensured. Old ground should not be revisited. She commented that from a business perspective, journey time was paramount to transport solutions and reducing these was the only way to get people out of their cars. The GCP had a unique opportunity to do something different in the longer term; an on-road solution was short term and a long term ambitious solution was needed.

The GCP Transport Director, Arup and Mott MacDonald representatives responded to the points raised:

- Arup had been providing technical advice to the Combined Authority around the buildability and technical aspects of the CAM. The Joint Assembly was informed that an underground system could be built.
- The strategic outline business case would follow the Green Book Treasury principles and would be available in the public domain in January/February 2019.
- Officers would look at an interim on-road solution and would inform members of a timescale for this work.
- The evidence around the northern route would be pulled together into a single document.
- Work was ongoing on the East/West rail and a consultation was expected in early 2019. The GCP was in regular discussions with constituent authorities.
- There was much more work to be done on mitigation and nothing had been ruled out.
- The off-road option had performed significantly better than the on-road scheme at public consultation.
- Assurance was provided that the heritage and environmental aspects along the route had been considered. More detailed surveys had been undertaken and local wildlife sites had been included in this. The two most significant sites in terms of heritage and the environment at a national level, were along the on-road route. Further surveys were ongoing.
- The assessment of patronage was based on work that had been carried out on the benefit cost ratio and was based on committed development. Wider economic benefit considered the potential development that could result if the scheme was in place. A fully segregated scheme that was future proofed and could operate without congestion in the long term, would enable development more successfully than an on-road alternative that would eventually fail at key points along the route, due to congestion.
- Officers clarified that not all focus was on journey time.

The GCP Transport Portfolio Holder offered to meet with Joint Assembly members to discuss this scheme and the issues raised at the meeting, before or after the December Executive Board meeting. The LLF Chairman was also welcome to attend this meeting.

7. CITY ACCESS AND BUS SERVICE IMPROVEMENTS - UPDATE

The GCP Transport Director presented a report which updated the Joint Assembly on the City Access workstreams, with a focus on developing options for securing a step-change in public transport, reducing congestion and improving air quality in Greater Cambridge. The public transport offering needed to go far beyond what already existed, with significant improvements in journey time and reliability needed.

Councillor Wilson commented that the diagram of proposed routes excluded many villages; it was important that the residents of these villages knew that they would not be overlooked. As the local member for Cottenham, one of the largest villages in South Cambridgeshire, Councillor Wilson pointed out that the bus from Cottenham to Cambridge took one hour and as such, was not a viable option for people commuting to work. Furthermore she pointed out that neither the stations nor Addenbrooke's could be reached from Cottenham without changing buses. The Oakington Rural Travel Hub would link to the guided busway however there was no bus service that linked Cottenham to Oakington and the busway. For people who would have to drive from Cottenham to the travel hub, only 41 parking spaces were proposed. Cottenham was a community of over 6000 residents, which would increase to 8000 with future development, and a good public

transport solution was needed.

Councillor Massey commented that it was vital that the city access project also focussed on villages outside the city. She suggested the reintroduction of the bus and bike service may be an option for rural communities to access their rural travel hubs. Faster and affordable public transport was needed across the city and from the villages, which was cheaper for people to use than their cars. Extremely low public transport fares were needed. She pointed out that people living within the city had to change buses to get to the train stations and hospital, which was not acceptable. A better public transport system was needed now; she pointed out that Newmarket Road was at a standstill at peak hours and the weekends, and development in the area would make this situation worse.

Councillor Kavanagh reiterated previous comments regarding the need for cycling improvements and felt this point had not been made strongly enough in the report. He suggested the GCP should build on the alternative modes of transport people were already using, such as cycling. More people would cycle if they felt it was safer to do so, therefore segregation of cyclists from other road users should be a top priority. A network of segregated cycle routes and safe junctions for cyclists was needed across the city, expanding what had already been achieved on Hills Road and Huntingdon Road.

Christopher Walkinshaw welcomed the report, in particular the emphasis it put on capacity issues. He suggested that reference to the number of people coming from outside the area and capacity issues on orbital routes, was missing from the report.

Andy Williams commented that the city access scheme was the top priority scheme for businesses. The importance of improving city access from surrounding areas needed to be emphasised.

Councillor Topping felt there was not enough in the report to explain the attraction of the proposals for the villages of South Cambridgeshire. He pointed out that economic growth was happening in South Cambridgeshire rather than Cambridge city.

Dr Wells commented that the emphasis on journey times was key however the way in which this would be achieved needed more discussion. He echoed the need to keep in mind the South Cambridgeshire villages and where people from these villages interchanged.

Councillor Baigent suggested that in order to make public transport more attractive, disincentives may be needed to encourage its increased use. He emphasised the need to be able to move around Cambridge quickly and cheaply by public transport and pointed out that it was quicker to get around Cambridge by bicycle. He suggested the GCP should be increasing the argument to provide cheaper and free transport around the city and South Cambridgeshire, in order to get people out of their cars.

Councillor Wotherspoon expressed concern about intelligent charging, pointing out that representatives from Transport for London did not think that congestion charging would work in Cambridge, as the city did not have the critical mass nor the universal access to public transport that was needed to make such a charge fair and equitable. A way of funding a public transport network without penalising drivers for having to use their cars to get into central Cambridge, was needed.

Councillor Bick welcomed the report, pointing out that more car free roads would make cycling safer.

The wording of questions being asked of the public and the information that accompanied the questions, was vital. Councillor Sollom expressed support for the idea of a citizens' assembly.

The GCP Transport Portfolio Holder was keen to ensure that rail was progressed. He highlighted the need to include residents who lived just outside the South Cambridgeshire border in public consultation, as many of these residents commuted to Cambridge.

8. HISTON ROAD: BUS, CYCLING AND WALKING IMPROVEMENTS - FINAL DESIGN

The GCP Transport Director presented the report which set out the final design for Histon Road. He explained that following the public consultation, changes had been made to the scheme to ensure that all aspects of it conformed with regulations, were considered safe and provided a good balance of functionality for all road users. The Joint Assembly was informed that given the contentious issues that remained regarding the Histon Road/Gilbert Road/Warwick Road junction, a further Histon Road LLF meeting would be held on 26 November 2018.

Public questions from Anna Williams, the Windsor Road Residents' Association and Lilian Rundblad were invited. The questions and a summary of the responses are provided at Appendix A of the minutes.

The Joint Assembly acknowledged written representations received from Nick Flynn, Roxanne de Beaux and Daniel Thomas, which had been circulated to members before the meeting.

Councillor Massey expressed concern at the number of public representations that had been received by Joint Assembly members, which expressed a feeling of betrayal by the GCP. She highlighted the need for cyclists to feel safe and pointed out that Hills Road had demonstrated that segregated cycle routes worked as an increase in cyclists had been seen here.

Councillor Wilson was pleased that the GCP was going back to the LLF to discuss the changes to the proposals. She was concerned that local people had taken a lot of time contributing to the public consultation and did not feel included in the subsequent changes to the scheme. The safety of cyclists was a concern and if they did not feel safe in a shared environment with pedestrians, they would cycle on the road which led to conflict between cyclists and drivers.

Members expressed concern at the changes to the proposals, which it was felt disadvantaged cyclists. It was pointed out that if cyclists did not feel safe and were discouraged from cycling, congestion would get worse. Members were disappointed that following the changes, the scheme would deliver little change for cyclists and pedestrians. Members felt that segregation at the Gilbert Road junction was needed.
Heather Richards pointed out that in order to achieve mode-shift to cycling, Histon Road needed to be looked at as a whole as a cyclist's entire journey needed to be safe in order to achieve mode-shift from bicycles to cars.

Some members considered that doing nothing about the junction at Kings Hedges Road, was a major safety concern for cyclists and pedestrians. There was significant concern that there had been a complete failure in the public consultation process regarding this project.

Councillor Topping commented that in comparison, the A1307 public consultation had

gone exceptionally well.

Some members felt that this issue should come back to the Joint Assembly following the LLF meeting, before proposals went to the Executive Board. A vote was taken on this with six members voting in favour of this. As the majority of members did not consider this necessary, it was agreed that the proposals would go straight to the Executive Board following the LLF meeting. Feedback from the LLF meeting would be presented to the Executive Board and the Joint Assembly Chairman would report the Joint Assembly's concerns.

In response to the concerns raised regarding the public consultation, the GCP Transport Director made the following points:

- The GCP recognised the concern about the Gilbert Road junction and pointed out that the proposals balanced a number of key priorities. The key concern was the safety of all road users. Officers would look at what could be done to resolve the issue and would discuss this with the LLF.
- All junctions in all schemes would be looked at in their own right.
- He explained that there was a safety concern on Histon Road due to the conflict between walkers and cyclists. Safety Officers considered that a segregated cycle system potentially allowed cyclists to come into conflict with pedestrians too quickly, whereas shared space would continue to slow cyclists down. Officers would continue to look at this to find a mutually agreeable solution.

Officers clarified that no changes were proposed to the Kings Hedges Road junction. This had been looked at in detail however it had been decided that the junction was out of scope of the scheme. Officers considered it prudent to leave this junction until it was known how the Darwin Green junction would look and how the area would function. Councillor Bick requested the GCP look at this junction when the appropriate time came.

The GCP Transport Portfolio Holder asked the GCP Transport Director to liaise with County Council officers regarding Darwin Green. He also requested that the County Council's Safety Officers be asked to attend the Histon Road LLF meeting.

9. QUARTERLY PROGRESS REPORT

The Head of Strategy and Programme presented a report which updated the Joint Assembly on progress across the GCP programme. In addition to the routine budget and performance monitoring information, the report contained an overview of cycling projects and an update on the recent skills procurement exercise. In relation to the latter, Members were informed that tender returns for the provision of a skills service had not been of sufficient quality to award a contract. The GCP hoped to go back out to market in the new year and would in the meantime work with procurement experts to try and improve the quality of future bids. The GCP would also work with companies who may be interested in bidding, to help them understand the procurement process.

Referring to the Smart Places progress report, it was noted that phase 2 status was shown as 'green' although detailed actions had yet to be agreed. It was suggested that this be reviewed at the next Working Group. The same report referred to a bid for 'C-CAV2', the next round of funding for development of autonomous vehicles. It was noted that if successful, this would potentially extend the scope outside the city into surrounding villages, including the potential development of autonomous vehicle hubs. Consideration would need to be given to how to engage these communities in a wider debate on this.

10. DATE OF NEXT MEETING

It was noted that the next meeting would take place at 2pm on Wednesday 27 February 2018, at the Guildhall in Cambridge.

The Meeting ended at 5.40pm

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Appendix A to the minutes of the 15th November 2018 meeting of the Greater Cambridge Partnership Joint Assembly – Public Questions and Responses

6	Cambourne to Cambridge Better Public Transport Project		
	Questioner	**Question**	**Response**
6a	Dr Marilyn Treacy	The GCP and Combined Authority's preferred SRA for the off road route does not link with future plans for the Oxford-Cambridge expressway, nor the A14/M11 junction, nor take account of the Comberton to Cambridge Greenway. Neither does it link the majority of commuters to their places of work. It relies on the possibility of as yet unfunded tunnelling. Would the J.A. therefore request that the Board take the recommended Specific Route Alignment off the table until the GCP proposes a scheme that takes account of these other developments? In the meantime, recognising the lack of need for a cycleway and walkway down the A1303 once the parallel Greenway is completed, the GCP could trial a dedicated busway down Madingley Hill which could, in future, be developed into a fully segregated CAM route if approval is given for tunnelling from the West Cambridge site.	The GCP Transport Director's presentation set the context and urgent and pressing need faced to deliver to public transport services. The C2C project was consistent with the local plan and other transport documents that existed. The GCP was seeking to develop a scheme on this basis. He pointed out that it was important to recognise that the report did not present a final decision on the project, with more work and further public consultation to be done before this decision was taken. The scheme was on a pathway to development, with more work still to be done and the final decision on the scheme was still some time away. Work had previously been carried out on a northern route alignment. The Transport Director had undertaken at the LLF meeting to dust this work down and show what had been done. The work had indicated that the route to Girton was much less direct. It had reliance on the Girton Interchange and there was no assurance that Highways England would be taking the Girton Interchange work forward in the short term. Information from Natural and Historic England would be released as requested. The GCP's development of the C2C schemes was in line
6b	Allan Treacy	With reference to the Arup report (appendix 2, page 10, section 4.9), there is a wholly superficial assessment of the alternative proposal put forward by CPPF and others for a Northern route that links with the Girton Interchange which is summarily dismissed by Arup. The detailed basis of their rejection is not included in their report.	

		Given the wide support that an improved Girton Interchange has amongst many of the area's residents and interested organisations, will you please instruct Arup to publish, in detail, the basis for their rejection of this proposal. In the interests of openness will the Assembly ask that this information is made available to both the public and the Board before they make a decision to discount this option?	with Government guidance on transport scheme assessment. This had a number of considerations including transport, environmental, commercial and engineering aspects, and public consultation. The GCP undertook both early non-statutory public consultation and statutory public consultation, which it would be continuing to undertake, and was required to demonstrate that this process had been followed. The GCP had tried to be clear on its website of the responses to public consultation that had been received on the various options. The GCP would continue to use the approved processes. The objective was to arrive at a scheme option to present to decision makers, to enable them to make a balanced decision informed by both technical advice and public opinion. The off-road route is consistent with Highways England's plans for the A14 and M11 and would complements the Comberton to Cambridge Greenway. The progress of the Oxford-Cambridge expressway has been noted but the timescale of the scheme was a considerable time away and would not enable the GCP to deliver improved public transport for 10-15 years and as such, does not address the issues which City Deal funds were allocated to resolve.
6c	James Littlewood (Cambridge Past Present and Future	The Arup and officers reports refer to avoiding adverse impacts in the "West Fields" and Coton village. However the greatest impact of significance would actually be on Madingley Hill (ie the section between Madingley Mulch and the M11). This does not seem to be reflected in the summary assessment of Route Options, which scores Route A as "positive" in this respect. Nor is it reflected in the proposed mitigation options – for which it appears that only the section next to the village would be mitigated. Please can the Assembly ask why the length of route with potentially the greatest landscape impact, which is covenanted by the National Trust, does not appear to register in the constraints or mitigation?	
6d	Roger Tomlinson – Coton Parish Councillor	GCP consults and engages the public, though the development of route options for Cambourne to Cambridge went through a series of five iterations, reducing 34 options to four, then six, BEFORE public consultation started in 2015. The public said the County Transport Officers chose the wrong routes but have championed their choice ever since.	

		The report claims that “gathering and then reflecting public and stakeholder support and views are a key factor in option selection. As such the robust public consultation has informed and shaped the scheme and optioneering process which has led to the strategic option.” That is quite simply not true. The County Council ‘s lawyer told Coton Parish Councillors that consultations were not statutory and the Council had the power to ignore the responses. Attenders at the LLF, “workshops”, “focus groups” confirm these have been ‘contentious’ between participants and the officers and their consultants. The route options not chosen by the officers have never been fully evaluated. There is a table purporting to show the actions taken in response to public input, but no reference to the public and their elected representatives proposing alternative routes since 2015. This table under-represents the public supporting an on-road route; independent analysis of the data shows that over 64% rejected the off-road route options. The pattern of ignoring the public input has recurred throughout the progress of this scheme. As the Greater Cambridge Partnership is not the County Council, can we have an explanation of the GCP consultation policy, and how the views of the public are actually taken into account, and how the internal decisions are taken, and under what authority	

		public input, including from local elected representatives and councillors, is ignored?	
6e	Alistair Burford	Given that the Mayor and GCP have agreed that the transport system is a CAM rather than a Guided Busway, should the GCP be looking at an alternative route. The Arup report made a recommendation that the route must align with the CAM system. However there is no evidence in the report that the Officers preferred route will. Should the GCP now identify an alternative route that would better fit CAM ie: if the goal is to get to the Cambridge West Site and then on to the wider employment centres eg. BioCampus, Is a route north of the A428 and 1303 not a more direct and less environmentally damaging alternative?	
6f	Dr Gabriel Fox	We have heard a lot lately about the idea of a city-wide metro system including tunnels under the historic centre. There may be benefits to such a scheme and it will be interesting to see some practical details. But the fact is that such systems are extremely difficult to bring to life. That may explain why there are only 3 metros in the UK, two of them (London and Glasgow) developed in the 19th century and the other (Tyne and Wear) dating back 40 years. These systems can take decades to work out, well beyond one or even two terms of a local authority or Mayor. And they come with a frightening price tag. The Mayor has already suggested £3 billion – and we can expect that to double when lifetime maintenance, inflation, optimism bias and other costs are taken into account. And then probably double again, as is generally the way with these schemes.	The GCP accepted the challenges that were faced in delivering the projects and was continuing to work closely with colleagues at the Combined Authority on these.

		Now consider that the London Underground, serving a population well over ten million, generates just 5% operating profit on more than £2 billion a year of fares and clocks up a net annual loss of more than £600 million when depreciation, amortisation and the like are taken into account. If the Mayor is looking for private investment, it could be a very long wait indeed for them to get a return. And if he is looking to us, the ever-giving public, to provide the funds, consider that the final cost could add up to the entire expenditure of the City, County and South Cambridgeshire District Councils for more than a decade. That's a staggering amount of money to find. So it may be an interesting idea but it's still a long, long way from being a credible solution, especially as we move into an era when people will expect their transport to be on-demand, rather than at a bus stop. With that in mind: a) Why is there any need now to specify a preferred route for the Cambourne to Grange Road section of the metro, rather than waiting until we know if the metro as a whole can be funded and delivered? b) What is proposed to improve public transport for people west of Cambridge during the 10 or 20 years until a metro might be up and running? c) What will happen to this supposedly "preferred" off-road route if the metro doesn't go ahead?	

8	Histon Road: Bus, Cycling and Walking Improvements		
	Questioner	**Question**	**Response**
8a	Anna Williams – Cambridge Cycling Campaign	I am speaking today on behalf of Camcycle's 1,300 members, but also my own family. After too many scary experiences on Histon Road, I no longer cycle there with my children. Many people wrote in our Cambridge Cycling Survey that they avoid Histon Road under current conditions. If existing cyclists already steer clear of Histon Road, and if the proposals are only a slight improvement, then how can we expect new people to take up cycling here? We believe that the current designs for this scheme: • Fail sufficiently to improve safety for cyclists. Research consistently proves that the main barrier to cycling is feeling unsafe on the roads. This is even more true for women and older people. • Fail to improve conditions for pedestrians. Lost trees, interruptions at minor side roads and being forced to share narrow pavements with cyclists around busy junctions will not achieve the goal of a safe and pleasant community and won't help people with visual impairments • Betray the community process, by jettisoning years' worth of input from Local Liaison Forums, workshops and consultations. For example, the popular Gilbert Road segregated junction design vanished last week, even	The GCP Transport Director responded to the concerns raised. He provided assurance that the GCP was trying to bring all stakeholders with it. He pointed out that this scheme involved an element of compromise and the priority was the safety of all road users. A fully segregated cycle system across the city would require fewer other things on the roads and less traffic. A balance of priority was needed and there was not the physical space on the road to satisfy all users, whose safety was a priority. Changes had been discussed and most of these were broadly supported. There were outstanding issues regarding Gilbert Road and as such, a further meeting with the LLF would be taking place.

		though it was supported by the LLF and two-thirds of the public in the most recent consultation. The current plans now look very similar to the discredited 'Do Something' design of two years ago. • Are no longer value for money and will fail to achieve a modal shift to sustainable transport. This plan misses a once-in-a-generation opportunity to make a true difference for walking and cycling on Histon Road. We would like to ask the Joint Assembly if they agree with Camcycle and local residents that the project needs to reincorporate the LLF resolutions that have been dropped?	
8b	Windsor Road Residents' Association	As participants at the Histon Road LLF meeting on 8 October 2018 we question why many of the proposals agreed at this latest LLF meeting have not been incorporated in the "Histon Road Final Design" to be considered at the Joint Assembly on 15 November. We therefore request postponement of Agenda Item 8 in order to give time for the proposals arising from the Histon Road LLFs to be given full attention?	A representative was not present to ask this question at the meeting.
8c	Lilian Rundblad (Chair, Histon Road Residents' Association)	Since Histon Road Final Design includes so many changes in certain designs which have not been discussed and decided at a LLF meeting and since our request to have a LLF before the Joint Assembly was denied, it is evident that a LLF is necessary before the next Executive Board on December 6th.	An additional LLF meeting would take place on 26 November 2018.

		Changes after the Consultation: The Gilbert Road/Warwick Road/Histon Road Junction design which is the major concern in an article by CamCycles. The approved LLF design was presented in the consultation and was supported by 68.6%, no opinion 15.8% and opposed 15.4%. This has been ignored and a new Officers' design is presented in the Final Scheme which has not been discussed in the LLF. The Carisbrooke Road Junction design has never been discussed in an LLF and was not included in the Consultation, only a question if we wanted it. We believe the bus-lane should not stop in the middle of the junction but well before it to allow the private car lane to join the bus-lane and not causing congestion. On the request of the HRARA, please can a meeting of the Histon Road LLF be organised in good time before the GCP Executive Board on 6 December 2018?	
8d	Lilian Rundblad (Chair, Histon Road Residents' Association)	To create a vision of an avenue of trees as an entrance into the iconic, historic centre of Cambridge. The very long ca 150m and more of wooden fence has been modified in the Histon Road Final Design to a steel-mesh fence with climbers. This new change has not been discussed at any LLF meeting nor with the residents living between Blackhall Road and Brownlow Road having their back-gardens bordering the intended fence. Although the steel-mesh fence with ivy and the	Discussions would take place with adjacent property owners, regarding the steel-mesh fence. The issue of planting and height would be discussed with all property owners. A drainage system would be in place and this was being worked on. The GCP was working with the County Council on the adoption process and was working on the landscape

		verge with species rich grass may be an improvement, the length and height of the fencing is of concern. To safeguard the residents' privacy the height of the steel-mesh fence must be 3m which according to the project team is available. The sloping verge requires a drainage construction towards the private property boundaries along the full length of the intended fencing due to the high water level surroundings. Both 1 and 2 will be maintained by the Highways None of the private fences will be removed. Most of all – to create interest in this long fence we request that a tree of 3-4m height will be placed in the verge at every other panel. On the request of the HRARA, please can the Joint Assembly recommend that the above points be incorporated in the Final Histon Road Design, to be discussed at the next LLF meeting and the Executive Board meeting on December 6 2018?	design. Assurance was provided that no fences would be taken away.

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Greater Cambridge Partnership Joint Assembly
Questions by the Public and Public Speaking

At the discretion of the Chairperson, members of the public may ask questions at meetings of the Joint Assembly. This standard protocol is to be observed by public speakers:

- Notice of the question should be given to the Democratic Services Team at South Cambridgeshire District Council (as administering authority) by 10am three working days before the meeting.

- Questions should be limited to a maximum of 300 words.

- Questioners will not be permitted to raise the competence or performance of a member, officer or representative of any partner on the Joint Assembly, nor any matter involving exempt information (normally considered as 'confidential').

- Questioners cannot make any abusive or defamatory comments.

- If any clarification of what the questioner has said is required, the Chairperson will have the discretion to allow other Joint Assembly members to ask questions.

- The questioner will not be permitted to participate in any subsequent discussion and will not be entitled to vote.

- The Chairperson will decide when and what time will be set aside for questions depending on the amount of business on the agenda for the meeting. Normally questions will be received as the first substantive item of the meeting.

- Individual questioners will be permitted to speak for a maximum of three minutes.

- In the event of questions considered by the Chairperson as duplicating one another, it may be necessary for a spokesperson to be nominated to put forward the question on behalf of other questioners. If a spokesperson cannot be nominated or agreed, the questioner of the first such question received will be entitled to put forward their question.

- Questions should relate to items that are on the agenda for discussion at the meeting in question. The Chairperson will have the discretion to allow questions to be asked on other issues.

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GREATER CAMBRIDGE PARTNERSHIP

Growing and sharing prosperity

Delivering our City Deal

BUDGET SETTING 2019/20 AND QUARTERLY PROGRESS REPORT

Report to: Greater Cambridge Partnership Joint Assembly 27th February 2019

Lead Officer: Niamh Matthews – Head of Strategy and Programme

1 Purpose

1.1 To update Joint Assembly members on progress across the Greater Cambridge Partnership (GCP) programme and specifically:

- Note the proposed 2019/2020 expenditure budget of £33.6m; and
- Note the energy infrastructure proposal in section 15.

2 Programme Finance Overview

2.1 The table below gives an overview of the 2018/19 Budget:

Funding Type	2018/19 Budget (£000)	Expenditure to Date (£000)	Forecast Outturn (£000)	**Forecast Variance (£000)	Status*		
					Previous[1]	Current	Change
Infrastructure Programme	26,128	10,336	19,837	-6,291			↔
Operations Budget	3,790	1,444	3,000	-790			

**Please note, RAG explanations at the end of this report **Forecast Variance against 2018/19 budget*

[1] Throughout this report references to "previous status" relates to the progress report last considered by the Joint Assembly and Executive Board

Housing and Strategic Planning

"Accelerating housing delivery and homes for all"

Indicator	Target	Timing	Progress/ Forecast	Status		
				Previous	Current	Change
Housing Development Agency – new homes completed	250	2016 -	301			↔
Delivering 1,000 additional affordable homes**	1,000	2011-2031	853			↔

** Based on housing commitments as at January 2019 on rural exception sites, on sites not allocated for development in the Local Plans and outside of a defined settlement boundary.

3 Breakdown of Housing Development Agency Completion Locations and Tenure Types

Scheme Name	Local Authority	Ward/Area	Actual Affordable Completions 2016/17	Actual Affordable Completions 2017/18	Tenure Breakdown**
Colville Road	City Council	Cherry Hinton	25	0	25 AR
Water Lane	City Council	Chesterton	0	14	14 AR
Aylesborough Close	City Council	Arbury	20	0	20 AR
Clay Farm	City Council	Trumpington	0	104	78 AR & 26 SO
Homerton	City Council	Queen Edith's	39	0	29 AR & 10 SO
Fen Drayton Road	SCDC	Swavesey	20	0	20 AR
Horseheath Road	SCDC	Linton	4	0	4 AR
Hill Farm	SCDC	Foxton	15	0	15 AR
Ekin Road	City Council	Abbey	0	6	6 AR
Hawkins Road	City Council	Kings Hedges	0	9	9 AR
Fulbourn Road	City Council	Cherry Hinton	0	8	8 AR
Uphall Road	City Council	Romsey	0	2	2 AR
Bannold Road	SCDC	Waterbeach	0	11	11 AR
Cambridge City Housing Company	City Council	Arbury & Chesterton	0	24	24 AR
Total New Homes			**123**	**178**	

** AR – Affordable Rent
SO – Shared Ownership

4 Delivering 1,000 Additional Affordable Homes

4.1 The methodology agreed by the Executive Board for monitoring the 1,000 additional homes means that only once housing delivery exceeds the level needed to meet the Cambridge and South Cambridgeshire Local Plan requirements (33,500 homes between 2011 and 2031) can any affordable homes on eligible sites be counted towards the 1,000 additional new homes.

4.2 The Greater Cambridge housing trajectory published in December 2017 (in both the South Cambridgeshire and Cambridge Annual Monitoring Reports 2016-2017) shows that it is not anticipated that there will be a surplus in terms of delivery over and above that required to meet the housing requirements in the Local Plans until 2020/2021. Until 2020/2021, affordable homes that are being completed on eligible sites are contributing towards delivering the Greater Cambridge housing requirement of 33,500 dwellings. The date at which a surplus against the annualised housing requirement is anticipated will be reviewed and updated when the new Greater Cambridge housing trajectory is published in Spring 2019.

4.3 The table in the Housing and Strategic Planning section above shows that on the basis of known sites of 10 or more dwellings with planning permission or planning applications with a resolution to grant planning permission by South Cambridgeshire District Council's planning committee, 853 affordable homes on eligible sites are anticipated to be delivered between 2020 and 2031 towards the target of 1,000 by 2031. In practice this means that we already expect to be able to deliver 85% of the target on the basis of currently known sites.

4.4 In May 2018, South Cambridgeshire District Council published an update on its five year housing land supply that demonstrated that for the first time since June 2014 it could deliver a five year housing land supply. In September and October 2018, South Cambridgeshire District Council and Cambridge City Council adopted their Local Plans, and the Councils can now demonstrate 5.8 years of housing land supply for 2018-2023. As a result 'five year supply' sites are no longer being permitted by South Cambridgeshire District Council and a number of planning appeals on 'five year supply' sites have been dismissed by the Planning Inspectorate or withdrawn by the applicant. This change in circumstances in South Cambridgeshire in relation to five year housing land supply means that future contributions towards delivering the target will be solely from affordable housing on rural exception sites or planning permissions granted as a departure from the adopted development plan.

4.5 The latest housing trajectory (published in December 2017) shows that 38,080 dwellings are anticipated in Greater Cambridge between 2011 and 2031, which is 4,580 dwellings more than the housing requirement of 33,500 dwellings. There are still a further 12 years until 2031 during which affordable homes on other eligible sites will continue to come forward as part of the additional supply, providing additional affordable homes that will count towards this target. With the adoption of the Local Plans and confirmation that the Councils have established a five year housing land supply, it is anticipated that rural exception sites will start to come forward again. However, due to the nature of rural exception sites and windfall sites, these cannot be robustly forecast up to 2031. Historically there is good evidence of rural exception sites being delivered (around 50 dwellings per year), and therefore we can be confident that the target will be achieved.

Skills

"Inspiring and developing our future workforce, so that businesses can grow"

5 Update on Current Form the Future Activity

Indicator	Target/ Profile	Progress	Status		
			Previous	Current	Change
Secondary school/UTC's KS3 & KS4 events	43	44			↔
Special needs events	4	4			↔
Post 16 (KS 5) events run in schools/UTC's	15	8			↔
Business School Brokerage Service	2	2			↔
Multi-school events - Opps Ahead/Primary School Fair/ARU	2	2			↔
Apprenticeship events/interactions (students + parents)	58	55			↓
Apprenticeship CPD (no of schools)	3	3			↔
Business Apprentice Employer Interaction (B2B)	3	3			↔
Local Labour Market Information	10	10			↔

6 Update on the GCP Apprenticeship Service

6.1 The GCP Apprenticeship tender was launched on Wednesday 12th December and closed on Friday 18th January.

6.2 Seven bids were received for the tender and they have all now been moderated. The quality of the bids was generally high and officers have been able to identify a preferred bidder. In order to adhere to procurement rules the formal award cannot be announced until the end of a ten-day standstill period which is Friday 22nd February. Subject to there being no formal objections during that period officers will verbally update the Joint Assembly at it the meeting to announce the preferred bidder.

Smart Places

"Harnessing and developing smart technology, to support transport, housing and skills"

Project	Target Completion Date	Forecast Completion Date	Status		
			Previous	Current	Change
T-CABS (CCAV3 Autonomous Vehicle Project)	Dec 2020	Dec 2020			↔
Smart Panels – Phase 2 Extension	Mar 2019	Mar 2019			↔
MotionMap – Phase 2 (Enhancements)	2019	2019			↔
Digital WayFinding – Phase 2 (Development)	2019	2019			↔
ICP Development – Phase 2	Mar 2019	Mar 2019			↔
Pedestrian and cycle sensor trials	2019	2019			↔
Update report on integrated ticketing opportunities	Dec 2018	May 2019			↔

7 T-CABS (C-CAV3 Autonomous Vehicle Project)

7.1 The project to trial autonomous shuttles on the Southern Section of the busway continues with multiple meetings held with both the supplier (RDM/Aurrigo), internal project team and external stakeholders. Discussions are underway regarding design plans for both the shuttle and the application that will ultimately be used by the passenger to call the shuttle, as well as stabling for the shuttles, entrance/exit from the busway etc.

8 Smart Panels – Phase 2 Extension

8.1 Follow up discussions are under way with the 12 organisations who have shown interest in hosting a Smart Panel. The further round of publicity was delayed at the end of last year as it was decided that it would be more effective to promote the solution in the new year.

9 MotionMap – Phase 2 (Enhancements)

9.1 Downloads of MotionMap have increased to nearly 1300. Enhancements based on the two changes most requested by users have been implemented and were deployed in January for both Apple and Android.

10 Digital Wayfinding – Phase 2 (Development)

10.1 Meetings have been held with Visit Cambridge and the BID to confirm the most suitable proposed sites for additional devices. The outcome of this is a list of approximately 10 potential sites where digital wayfinding would enhance the user experience for visitors, commuters and residents.

10.2 We are working with the supplier to evaluate and provide feedback on their development of an improved journey planner. Once signed off, the planner on the devices throughout the city will be updated.

10.3 It has also been demonstrated that key council messaging (such as advertising for Foster Carers) can be displayed on the screens when they are not in active use. This provides an additional benefit of the devices being installed throughout the city.

11 ICP Development – Phase 2

11.1 Work continues on the platform with improvements to bus time prediction data and efforts to make the data more widely available through new channels.

12 Pedestrian and Cycle Sensor Trials

12.1 The specification for work to conduct sensor trials with the aim of collecting significantly improved data has been finalised. A 'Request for Quotation' process will be started imminently, with the aim of procuring sensors to be used in conjunction with the proposed Mill Road bridge closure for works by Network Rail. The aim is to secure a sensor deployment ahead of the closure to provide a benchmark against which the impact of the closure can be measured. Having the sensors in place after the works are completed will allow data to be obtained highlighting the impact of temporary closure.

13 Integrated Ticketing Opportunities

13.1 Procurement is complete for consultancy support for an updated review of the integrated ticketing opportunities available, and a supplier will be appointed shortly.

Transport

"Creating better and greener transport networks, connecting people to homes, jobs, study and opportunity"

14 Transport Delivery Overview

Project		Delivery Stage	Target Completion Date	Forecast Completion Date	Status		
					Previous	Current	Change
Tranche 1							
Ely to Cambridge Transport Study		Completed					
A10 cycle route (Shepreth to Melbourn)		Completed					
Cambridge Southeast Transport Study (formerly A1307)		Design	2025	2024			↔
Cambourne to Cambridge / A428 Corridor		Design	2024	2024			↔
Milton Road		Design	2021	2020			↔
City Centre Access Project		Design	2020	2020			↔
Chisholm Trail Cycle Links	Phase 1	Construction	2020	2020			↔
	Phase 2	Design	2022	2022			↔
Cross-City Cycle Improvements	Fulbourn / Cherry Hinton Eastern Access	Construction	2019	2019			↔
	Hills Road / Addenbrooke's corridor	Completed	2017	2018			↔
	Links to East Cambridge & NCN11/ Fen Ditton	Construction	2018	2019			↓
	Arbury Road corridor	Construction	2018	2019			↓
	Links to Cambridge North Station & Science Park	Construction	2018	2019			↓
Histon Road Bus Priority		Design	2022	2020			↔
West of Cambridge Package		Design	2021	2021			↔
Greenways Quick Wins		Construction	2020	2020			↔
Ely to Cambridge Transport Study		Design	2019	2019			↔
Cambridge South Station		Baseline Study	2018	2018			↔

Residents Parking Implementation	Project Initiation	2021	2021			↔
Greenways Development	Design	2019	2019			↔
Rural Travel Hubs	Project Initiation	2021	2021			↔
Travel Audit – South Station and biomedical campus	Baseline Study	2018	2019			↓

15 Transport Finance Overview (to 31st January 2019)

Project	Original Approved Total Budget (£'000)	Revised Total Budget (£'000)	Change (£'000)	2018-19 Budget £'000	2018-19 Outturn £'000	2018-19 Variance £'000	2018-19 budget status		
							Previous	Current	Change
Cambridge Southeast Transport Study (formerly A1307)	141,082	140,735	0	1,397	2,150	+753			↔
Cambourne to Cambridge / A428 corridor	59,040	157,000	0	2,900	2,600	-300			↔
Milton Road bus priority	23,040	23,040	0	800	330	-470			↔
City Centre Access Project	9,638	9,888	250	4,170	2,525	-1645			↔
Chisholm Trail	9,269	9,269	0	5,320	2,320	-3,000			↔
Cross-City Cycle Improvements	8,934	8,934	0	4,500	4,000	-500			↔
Histon Road Bus Priority	4,280	7,000	2,720	224	330	+106			↔
West of Cambridge package (formerly Western Orbital)	5,900	5,900	0	600	1,200	+600			↔
Greenways Quick Wins	0	4,650	4,650	3,000	2,000	-1,000			↔
Programme Management & Early Scheme Development	3,200	3,200	0	800	800	0			↔
Ely to Cambridge Transport Study	2,600	2,600	0	892	32	-860			↔
Cambridge South Station	1,750	1,750	0	925	925	0			↔
Residents Parking Implementation	1,191	1,191	0	219	219	0			↔
Rural Travel Hubs	700	700	0	75	70	-5			↔
Greenways Development	500	500	0	244	244	0			↔
Travel Audit – South Station and biomedical campus	150	180	30	62	92	+30			↓
Total	**271,274**	**278,924**	**7,650**	**26,128**	**19,837**	**-6,291**			↔

15.1 The explanation for variances is set out in the following paragraphs.

Cambridge Southeast Transport Study (formerly A1307)

15.2 There is likely to be an overspend of £753k due to revised cost forecasts for Phase 2 development work and additional surveys. The total budget has been revised in line with the higher cost option agreed by the GCP Board in the March 2018 Budget Setting Report. Adoption of Strategy 1 as a preferred strategy for development was agreed at the 11th October GCP Board Meeting.

Cambourne to Cambridge / A428 Corridor

15.3 An underspend of £300k is anticipated. Consultation is on schedule for February/March 2019. Post consultation analysis, currently priced in to the estimated outturn, will now be spent in the next financial year.

Milton Road – Bus Priority

15.4 As previously reported, the forecast outturn spend is £470k less than originally planned with construction costs now moving into 2019/20. Detailed design is planned to commence in Spring 2019 with mobilisation and construction starting in early 2020.

City Access Programme

15.5 An underspend of £1.65m is forecast for 2018/19, as several work streams in the City Access programme have been put back to allow for other work to be completed.

Chisholm Trail

15.6 An underspend of £3m is forecast for 2018/19 against the original spend profile due to delays in discharging pre-commencement planning conditions and finalising land deals. As the construction contract has now been awarded for Chisholm Trail Phase 1 and Abbey-Chesterton Bridge, work has commenced on site so spend has increased significantly as anticipated.

Cross-City Cycle Improvements

15.7 Early in the financial year it was identified that there would be an underspend of £500k, against the 2018/19 budget of £4.5m, as it was anticipated that there would be final contractor bills plus any minor alterations and amendments being made to completed schemes rolling into 2019/20. The situation remains unchanged with the remaining £500k to be spent next financial year.

Histon Road – Bus Priority

15.8 As previously reported, the forecast outturn spend is £106k more than originally planned. This is due to advancing the detailed design phase starting into this financial year, bringing forward costs and positively impacting potential outturn spend.

West of Cambridge Package of Interventions (formerly Western Orbital)

15.9 The anticipated overspend remains at £600k as the forecast outturn for the year has increased to £1.2m (from £600k) to reflect the requirement to complete the Trumpington Extension works in 2018/19.

15.10 Works for the extension have commenced. At this time it is not anticipated that any further changes to outturn are required.

Greenways Quick Wins

15.11 Spend in 2018/19 will now be £2m rather than £3m, as in many cases, scheme estimates have proved to be higher than the actual costs required.

Programme Management & Early Scheme Development

15.12 There has been no change since last month. Current spend is on track in line with the 2018/19 forecast of £800k.

Ely to Cambridge Transport Study

15.13 The study is now complete and all technical reports received. This project has an underspend of £860k and no further consultant costs are anticipated. The Combined Authority now has the responsibility of taking forward the recommendations.

Cambridge South Station

15.14 No spend has been incurred to date. The feasibility study has commenced with DfT overseeing the contract. The £925k budget is expected to be spent during the remainder of the 2018/19 financial year.

Residents Parking Implementation

15.15 Although minimal spend has been incurred to date, it is currently forecast that the budget will be spent in the remainder of 2018/19.

Rural Travel Hubs

15.16 The revised forecast outturn for works to be completed for the 2018/19 financial year is £70k. The project is on track to spend during the year, leaving a current forecast underspend of approximately £5k.

Greenways Development

15.17 £244,000 is the remaining budget for development of the 12 routes, all of which should be spent during the 2018/19 financial year. These include the Linton Greenway, although for operational purposes, that is being managed as part of the Cambridge South East Transport Study.

Travel Audit – South Station and Biomedical Campus

15.18 Owing to the requirement to carry out some significant further work on the study, to include assessing the impacts of numerous related transport schemes in the area which have progressed since the Travel Audit for South Station and the Cambridge Biomedical Campus began, the budget requirement for 2018/19 has increased.

15.19 The study now assesses the impact of the South-East Cambridge (formally A1307) study proposals, the West of Cambridge package proposals, the proposed new Park and Ride site close to J11 of the M11, the Cambridge Autonomous Metro (CAM), various Greenways and also the added certainty around Cambridge South Station, on the Campus area.

15.20 The additional work, the cost of keeping the project live with the consultants for an extra 6 months and additional internal staff costs means the total overall budget has risen to £180,000, an increase of £30,000. The remainder of the budget is expected to be spent in 2018/19.

Economy and Environment

16 ***Local Grid Constraints***

16.1 The Economy and Environment Working Group has been considering the constraints that the energy grid within Greater Cambridge may pose on sustainable economic growth in the future. Officers have commissioned and worked with consultants to produce a report studying likely changes in energy demand arising from growth and the anticipated electrification of transport; the constraints on such growth potentially posed by the power grid; and potential solutions.

16.2 Early indications suggest that the Grid is approaching full capacity and requires significant investment to enable further connections to be brought forward. This capacity constraint has the potential to slow the delivery of housing and economic development unless action is taken to speed up the delivery of new grid capacity.

16.3 Our research has found that the Grid is constrained because the way that the regulatory and market frameworks operate means that local network operators are not incentivised to invest in the network proactively. Individual developers are not currently likely to invest in grid reinforcements either due to the high costs and level of risk and their limited ability to recover the costs from other developers.

16.4 Given the GCP's role in facilitating further sustainable economic growth, based on the initial findings, there may be a role that the GCP could play, potentially alongside other stakeholders, in alleviating these constraints on the Grid and unlocking business growth that may otherwise be stalled.

16.5 Work is at an early stage but an emerging recommendation is that GCP and/or other stakeholders could consider investing roughly £25m to build a new substation that would ease the pressure on the local network throughout Greater Cambridge. The cost would be partially offset over the medium-to-longer term as we would look to charge potential developers a fee when they are connected to the grid.

16.6 In order for officers to further understand the costs, opportunities, risks and challenges, we are looking to commission UK Power Networks, who are the local network operators, to undertake a study as to how local partners could go about delivering a new substation. The cost of this will further study would be £20k, in addition to the £20k for the study already completed by our consultants.

17 Budget Setting 2019/2020

17.1 The attached spreadsheet sets out a proposed GCP draft budget for 2019/2020.

17.2 Officers propose the following changes to previously agreed budgets:

Chisholm Trail Cycle Links

17.3 As outlined in the Chisholm Trail report [agenda item 10 refers] an increase of £5m from £9.3m to £14.3m to complete phase two of the scheme.

Developing 12 Cycling Greenways

17.4 Increase of £36k in order to complete the early development phase of the schemes.

Eastern Access

17.5 The commencement of works along the eastern corridor was agreed at the October 2018 Executive Board. As such, officers have identified a £500k budget to initiate these works during 2019/2020.

Engagement and Communications

17.6 In line with last year's budget, allocate £88k to support the central communications function of the GCP.

18 Funding Assumptions

S106 Position

18.1 In line with due process every financial year S106 estimates are reviewed. The S106 estimated profile assumes S106 receipts of c£45m. To date c£27m has been agreed (not all received yet), although some of it depends on being matched against applicable GCP schemes. This will not be known until the detail of the GCP's major schemes is finalised.

18.2 In next year's budget setting exercise an updated estimate will be made for S106 receipts. There are already discussions over a number of major growth sites, for example, Waterbeach. It is worth noting that there is a tension between the funding of strategic transport contributions and affordable housing when developers' viability assessments suggest a limit to the total amount of S106 available.

New Homes Bonus (NHB) Position

18.3 New Homes Bonus was introduced in 2011 to provide an incentive for local authorities to encourage housing growth in their areas. In 2018/19 South Cambs, Cambridge City, and the County Council all allocated 40% of their NHB allocations for the GCP area to GCP projects. It is proposed to reduce this percentage to 30% in 2019/2020. The implication on the GCP's budget for the 2019/2020 financial year is a reduction of £1,045m from £4,037m to £2,992m.

18.4 2019/2020 represents the final year of funding agreed through the Government's Spending Review 2015, and so the final year of the current approach to NHB. It is the

Government's intention to explore how to incentivise housing growth, for example by using the Housing Delivery Test results to reward delivery or incentivising plans that meet or exceed local housing need. Government will consult on any changes prior to implementation. Until the outcome of this consultation is known it is assumed that NHB will continue based on the current methodology.

19 Funding Shortfall

19.1 The current profiled costs and funding, up to 2024/2025, across all currently identified schemes demonstrates a shortfall of c£50m. However, this assumes the GCP is successful in achieving further funding (£200m) as part of its first Gateway Review at the end of 2019/2020. Should the GCP not be successful in securing further Government funding at the end of 2019/2020 the Board will need to go through a rigorous scheme prioritisation process. However, this figure does not account for a successful second Gateway Review in 2025 (a potential further £200m).

19.2 It is important to note that the current profiled costs do not include any development costs for either the Science Park to Waterbeach or the Eastern Access schemes, which were agreed at the October Executive Board meeting. In addition to the currently identified funding shortfall (subject to successful Gateway one) of c£50m the Joint Assembly and Board should consider this a risk to programme delivery.

19.3 Should the GCP be successful in securing funding through its second Gateway Review (2025) it will unlock a further £200m of funding. Given costs for the Science Park to Waterbeach and the Eastern Gateway schemes have not yet been determined and an assumption that their scale is likely to be similar to that of our current major schemes (A428 Cambourne to Cambridge and Cambridge South East Scheme) at this time it is reasonable to consider that all the GCP's current and profiled future funding is fully committed. Subject to these schemes coming forward, it is likely that there will be additional S106 contributions allocated against GCP schemes.

19.4 As it currently stands the GCP's projected local contributions (S106 and NHB) match fund Government grant as follows: c£70m local to £100m Government grant. The City Deal commits the GCP to match fund the Government's grant in its totality (to date £100m). As further S106 contributions come forward, the local match should increase accordingly. It is the Government's expectation that this match funding commitment remains over the course of the GCP's investments (c15years). The Board should consider this assumption as part of its planning and decision making for future investments and development.

19.5 Should the currently profiled schemes remain on target the Joint Assembly and Board may wish to consider the potential, in future years, to borrow against projected GCP income streams. This would be subject to formal agreement from the GCP's accountable body (Cambridgeshire County Council).

Note to reader – RAG Explanations

Finance Tables

- **Green**: Projected to come in on or under budget
- **Amber**: Projected to come in over budget, but with measures proposed/in place to bring it in under budget
- **Red**: Projected to come in over budget, without clear measures currently proposed/in place

Indicator Tables

- **Green**: Forecasting or realising achieving/exceeding target
- **Amber**: Forecasting or realising a slight underachievement of target
- **Red**: Forecasting or realising a significant underachievement of target

Project Delivery Tables

- **Green**: Delivery projected on or before target date
- **Amber**: Delivery projected after target date, but with measures in place to meet the target date (this may include redefining the target date to respond to emerging issues/information
- **Red**: Delivery projected after target date, without clear measures proposed/in place to meet the target date

EXECUTIVE BOARD FORWARD PLAN OF KEY DECISIONS

Notice is hereby given of:

- Decisions that that will be taken by the GCP Executive Board, including key decisions as identified in the table below.
- Confidential or exempt executive decisions that will be taken in a meeting from which the public will be excluded (for whole or part).

A 'key decision' is one that is likely:

a) To result in the incurring of expenditure which is, or the making of savings which are, significant having regard to the budget for the service or function to which the decision relates; or

b) To be significant in terms of its effects on communities living or working in the Greater Cambridge area.

Executive Board: 20 March 2019	**Reports for each item to be published: 8 March 2019**	**Report Author**	**Key Decision**	**Alignment with Combined Authority**
GCP Quarterly Progress Report	To monitor progress across the GCP workstreams, including financial monitoring information.	Niamh Matthews	No	N/A
GCP Future Investment Strategy	To agree a prioritised list of projects for future investment.	Rachel Stopard	Yes	CA Prospectus/ 4-year plan
Foxton Level Crossing and Travel Hub	To consider options and give approval to proceed with public consultation.	Peter Blake	Yes	CA LTP Passenger Transport Strategy
Output of Cambridge Biomedical Campus Study	To receive an update and information on the output of the study.	Peter Blake	No	CA LTP Passenger Transport/ Interchange Strategy

Chisholm Trail Cycle Links	To approve construction of phase 2 of the scheme, subject to planning permission.	Peter Blake	Yes	CA LTP Walking and Cycling Strategy
Milton Road	To consider results of the public consultation and give approval to any proposed modifications to the final preliminary design for Milton Road and to approve the outline business case as a basis for the detailed engineering design and final business case.	Peter Blake	Yes	CA LTP Passenger Transport Strategy
Rural Travel Hubs and Rural Bus Service Improvements	To receive an update on the Rural Travel Hubs Pilot project.	Peter Blake	No	CA LTP Passenger Transport Strategy
Executive Board: 27 June 2019	**Reports for each item to be published: 17 June 2019**	**Report Author**	**Key Decision**	**Alignment with Combined Authority**
Cambridge Autonomous Metro	To consider the strategic outline business case and funding strategy.	Peter Blake	No	CA LTP Passenger Transport Strategy
West of Cambridge Package (M11 J11 Park and Ride)	To consider the full outline business case for the proposed Park and Ride Expansion at Junction 11.	Peter Blake	Yes	CA LTP Passenger Transport / Interchange Strategy
City Access	To receive an update on progress to date and consider feedback from the public consultation exercise.	Peter Blake	No	CA LTP Passenger Transport / Interchange Strategy
Cambridge South East Transport Scheme (A1307)	To consider the strategic outline business case.	Peter Blake	No	CA LTP Passenger Transport / Interchange Strategy

GCP Quarterly Progress Report	To monitor progress across the GCP workstreams, including financial monitoring information.	Niamh Matthews	No	N/A
Executive Board: 3 October 2019	**Reports for each item to be published: 23 September 2019**	**Report Author**	**Key Decision**	**Alignment with Combined Authority**
GCP Quarterly Progress Report	To monitor progress across the GCP workstreams, including financial monitoring information.	Niamh Matthews	No	N/A
Cambourne to Cambridge Better Public Transport Project	To consider the result of further work in response to the interim report and the final Outline Business Case.	Peter Blake	Yes	CA LTP Passenger Transport Strategy
Histon Road: Bus, Cycling and Walking Improvements	To consider and award the construction contract.	Peter Blake	Yes	CA LTP Passenger Transport Strategy
Executive Board: 12 December 2019	**Reports for each item to be published: 2 December 2019**	**Report Author**	**Key Decision**	**Alignment with Combined Authority**
West of Cambridge Package (M11 J11 Park and Ride)	To consider detailed design proposals prior to seeking consent to obtain planning powers.	Peter Blake	No	CA LTP Passenger Transport Strategy
A10 Waterbeach to Science Park	To receive an update on the project and, if necessary, provide a steer on next steps.	Peter Blake	No	CA LTP Passenger Transport / Interchange Strategy

East Cambridge Corridor	To receive an update on the project and, if necessary, provide a steer on next steps.	Peter Blake	No	CA LTP Passenger Transport / Interchange Strategy
City Access	To receive an update on the project and, if necessary, provide a steer on next steps.	Peter Blake	No	CA LTP Passenger Transport / Interchange Strategy
GCP Quarterly Progress Report	To monitor progress across the GCP workstreams, including financial monitoring information.	Niamh Matthews	No	N/A

Corresponding meeting dates

Executive Board meeting	Reports for each item published	Joint Assembly meeting	Reports for each item published
20 March 2019	8 March 2019	27 February 2019	15 February 2019
27 June 2019	17 June 2019	6 June 2019	24 May 2019
3 October 2019	23 September 2019	12 September 2019	2 September 2019
12 December 2019	2 December 2019	21 November 2019	11 November 2019

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GCP BUDGET

EXPENDITURE	Previously Agreed Budget £000	Proposed Budget £000	Actual Spend 2015/16 £000	Actual Spend 2016/17 £000	Actual Spend 2017/18 £000	Project spend 2018/19 £000	Budget 2019/20 £000	Budget 2020/21 £000	Future Years £000
Infrastructure Programme Investment Budget									
Cambridge South East (A1307)	140,735	140,735	157	175	353	2,150	7,650	6,200	124,050
Cambourne to Cambridge (A428)	157,000	157,000	268	1,485	1,871	2,600	2,600	4,000	144,176
Science Park to Waterbeach (formerly A10 North study)	2,600	2,600	67	72	391	32	2,038		
Eastern Access	0	500					500		
West of Cambridge Package	42,000	42,000	240	416	717	1,200	3,000	6,000	30,427
Milton Road bus and cycling priority	23,040	23,040	188	238	339	330	600	12,000	9,345
Histon Road bus and cycling priority	7,000	7,000	199	181	46	330	1,000	4,500	744
City Centre Access Project	9,888	9,888	255	566	1,438	2,525	4,548	556	
Travel Hubs	700	700			84	70	5	541	
Residents Parking implementation	1,191	1,191			114	219	350	508	
Cycling									
Chisholm Trail cycle links	9,269	14,269	235	679	849	2,320	4,276	3,710	2,200
Greenways Quick wins	4,650	3,650			0	2,000	1,650		
Developing 12 cycling greenways	500	536			256	230	50		
Cross-city cycle improvements	8,934	8,934	257	864	2,966	4,000	847		
Cambridge South Station	1,750	1,750			0	925	825		
Programme management and early scheme development -TBC	3,200	3,200	355	781	802	800	462		
COMPLETE - A10 Cycle route - Frog End Melbourn	553	553		511	42				
COMPLETE - Travel Audit - South Station and biomedical campus	150	150			88	62			
Operational budgets									
Central Programme Co-ordination	2,394	2,394	111	391	728	644	520		
Engagement & Communications	339	427			251	88	88		
Skills	2,907	2,907	47	188	205	110	1,236	1,121	
Evidence, economic assessment and modelling	590	590			31	280	279		
Affordable Housing	170	170		10	0	125	35		
Cambridgeshire County Council costs	93	93			31	31	31		
South Cambridgeshire District Council costs	120	120			40	40	40		
Towards 2050	230	230			52	148	30		
Smart Cambridge	2,270	2,270		271	391	650	958		
COMPLETE - Cambridge Promotions Agency	150	150	60	90	0				
COMPLETE - Housing Delivery Agency	400	400		200	200				
COMPLETE - Cambridge Promotions	40	40			40				
Total Expenditure	**422,863**	427,487	**2,439**	**7,118**	**12,325**	**21,909**	**33,618**	**39,136**	**310,942**
INCOME									
City Deal grant	100,000	300,000	20,000	20,000	20,000	20,000	20,000	40,000	160,000
S106 contributions - TBC	44,500	44,500			7,874	2,000	2,000	2,000	30,626
New Homes Bonus		0							
NHB - Cambridge City	11,814	14,934	1,986	3,166	2,385	2,238	1,651	1,172	2,336
NHB - South Cambs	8,362	11,055	1,683	2,633	1,570	1,204	742	770	2,454
NHB - CCC	5,011	6,567	917	1,485	1,023	860	599	485	1,198
Interest accrued on grant funding	594	2,042		80	149	291	253	309	960
Total income	**170,281**	**379,098**	**24,586**	**27,364**	**33,001**	**26,593**	**25,245**	**44,735**	**197,574**
NET OVERALL GCP BUDGET	**-252,582**	**-48,389**	**22,147**	**20,246**	**20,676**	**4,684**	**-8,373**	**5,599**	**-113,368**

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GREATER CAMBRIDGE PARTNERSHIP

Growing and sharing prosperity

Delivering our City Deal

Report to: Greater Cambridge Partnership Joint Assembly 27th February 2019

Lead Officer: Rachel Stopard, Chief Executive

GREATER CAMBRIDGE PARTNERSHIP FUTURE INVESTMENT STRATEGY

1. Purpose

1.1 In March 2018 the Executive Board considered and agreed a draft Future Investment Strategy.

1.2 This paper sets out an updated Future Investment Strategy to support preparations for the forthcoming first Gateway Review. It is being presented alongside the proposed 2019-2020 budget. It includes:

- the process and criteria for undertaking prioritisation;
- a proposed initial prioritisation of key future projects;
- an updated longer list of schemes under consideration; and
- suggested next steps.

1.3 The Future Investment Strategy will continue to evolve as projects develop and additional funding – both match funding and government grant – is identified and secured. Officers will continue to engage with the Joint Assembly and Executive Board on the Future Investment Strategy and will bring back a fully prioritised programme for consideration.

1.4 The Joint Assembly is asked to comment on the updated Future Investment Strategy and the suggested principles and process for prioritisation.

2. Key Issues and Considerations

Background

2.1. The draft Future Investment Strategy presented in March 2018 set out initial packages of interventions based around the Greater Cambridge Partnership's (GCP's) five workstreams: transport, smart, housing, skills, and economy and environment. This took account of the findings from Our Big Conversation, which reinforced the case for taking action across a range of issues to enable continued growth throughout Greater Cambridge. In particular, respondents said that traffic congestion and lack of sufficient, reliable public transport were key issues. Following consideration by both the Joint Assembly and the Executive Board, the Executive Board agreed the draft Strategy and that further work should be undertaken on prioritisation of different interventions.

2.2. Poor transport connectivity continues to be a key barrier impacting on the labour market and economic growth. In November and December 2018 the Joint Assembly and Executive Board considered papers on City Access and Bus Service Improvements, including analysis to identify and prioritise the public transport service improvements that will make public

transport a better option than the car for the most possible commuters. Looking at the biggest commuter routes, both now and in the future, the analysis shows that to have the greatest impact the GCP needs to consider infrastructure and service provision on key corridors covering major residential areas and major employment sites in and around Greater Cambridge.

2.3. In September 2018, the Cambridgeshire and Peterborough Independent Economic Review (CPIER) published its final report. This has created a strong, shared evidence base for GCP, the Combined Authority and local authorities across the area on which to base interventions. The Review re-emphasises the importance of a package of transport and other infrastructure projects to alleviate the growing pains of Greater Cambridge: "the single most important infrastructure priority".

2.4. It continues to be clear from the evidence that a transformational solution is required to address the issues that pose a risk to continued economic growth and prosperity.

City Deal Assurance Framework

2.5. As part of the City Deal, the GCP agreed to use an assurance framework to decide how funding would be spent, in order to ensure the right interventions are made. It is largely based on transport objectives, sitting within a wider set of strategic objectives. Reflecting our evidence base, this is likely to mean focusing investment primarily on transport but with targeted interventions across other areas to maximise our impact on the overall goal of the City Deal – to facilitate the growth of Greater Cambridge.

Developing the Prioritisation Criteria

2.6. Taking the assurance framework as a starting point, prioritisation criteria have been developed. The framework's objectives have been translated into more specific and, where possible, measurable criteria that are used both at a strategic level to determine the GCP's programme and at a scheme level to determine specific interventions. Table 1 lists the proposed prioritisation criteria.

Table 1: Suggested Criteria for Prioritisation of New Schemes

STRATEGIC	
How does the scheme facilitate City Deal objectives?	What is the likely impact on facilitating economic growth of doing the scheme vs. not doing the scheme?[1]
	What is the impact on the labour market of doing the scheme?[2]
TRANSPORT	
What is the impact on people's travel choices?	Overall journey time improvement
	Impact on journey reliability
	Capacity improvement
	Competitiveness analysis of car vs. public transport and/or active travel

[1] This would be measured in line with government's criteria moving to Gateway 2025.

[2] For transport projects this measure would use connectivity and competitiveness measures. For other projects this could include looking at number of apprenticeships supported, or number of affordable or key worker homes unlocked.

Scale of impact	Connecting how many homes to how many jobs, including new and existing settlements
	Connecting different employment sites to encourage knowledge exchange
OVERALL	
Is the scheme deliverable?	Including affordability, practicality, risk analysis and stakeholder support
Is the scheme value for money and financially sustainable?	Including, if applicable, funding identified beyond the City Deal period
How does the scheme interact with other schemes (both GCP and non-GCP)?	In particular, alignment with CPCA schemes
Other policy impacts	Environmental and social distributional impacts
	Are there any impacts that severely deteriorate or negate the positive impacts?
	What is the likely impact on air quality?
	What is the impact on public realm? (alignment with spaces and movement SPD)

3. Options and Emerging Recommendations

Current Financial Position for the Future Investment Strategy

3.1. The 2019-20 budget is also being presented to the Joint Assembly and Executive Board during this meeting cycle. This sets out the latest position on our committed schemes. Taking these as a whole, current forecast spend is c.£427m against currently identified funding of £379m, consisting of £300m government grant (subject to successful first gateway review) and £79m estimated match funding. Estimated match funding currently includes approximate contributions from New Homes Bonus and Section 106.

3.2. There is the opportunity to secure a further £200m from government at the 2024/5 Gateway Review, but government grant alone was not intended or designed to meet the City Deal ambitions. Consideration needs to be given as to how to meet the City Deal's match funding commitment through, for example, further New Homes Bonus and Section 106 contributions. There is also an opportunity to look at how we can make best use of funding through borrowing. Work will continue in 2019 to identify match funding sources with the aim of creating a more accurate forecast.

3.3. Subject to securing additional government grant in 2020 and 2025, the GCP should have up to £579m of estimated funding, with existing commitments of c.£427m. The Future Investment Strategy therefore prioritises spend against the remaining government grant as well as identifying further projects to be considered as further funding is identified.

Proposed Initial Prioritisation

3.4. At a strategic programme level, and taking our evidence base, the prioritisation reinforces the case for the GCP's current work on the key Cambridge Autonomous Metro (CAM) corridors, and for consideration of service provision as well as infrastructure investments.

3.5. On this basis, the first spend priority of the Future Investment Strategy would be to **deliver current infrastructure schemes on CAM corridors** – including the new corridors north to Waterbeach and east towards Newmarket. Studies will shortly be commissioned to assess potential schemes and costings. An indicative allocation of £100m has been made to deliver these projects.

3.6. The second spend priority would be to **improve service provision on key routes** to make public transport competitive with the car, by improving journey times, service frequency and reliability. An indicative allocation of at least c.£20m/annum is likely to be needed to deliver these improvements. To implement this, it is assumed that an ongoing income stream will be needed beyond the period of the City Deal. Consideration of revenue-raising and demand management measures is ongoing, with GCP undertaking 'Choices for Better Journeys' engagement in February and March this year.

3.7. The City Deal creates a once in a generation opportunity to forward fund public transport improvements before implementing revenue-raising and demand management measures, so that people have increased and improved choices for making a journey. An indicative allocation of £75m to 2031 has been made for this forward funding.

3.8. The Future Investment Strategy should also encompass further schemes that are needed to enable continued economic growth. As set out in the progress report, the GCP's Economy and Environment Working Group commissioned work considering the extent of **energy capacity issues** and how these could be addressed. This found that intervention is necessary to ensure that Greater Cambridge has the right energy infrastructure to continue to grow. The Future Investment Strategy makes an indicative allocation of £25m of recoverable investment to address these issues by constructing a new 132kV grid substation. This £25m allocation would be recoverable as new large scale developments connect to the Grid, through a framework agreement with the local network operator. Officers are working to understand the detailed repayment period and how this would look against profiled costs in the future.

3.9. Together with existing commitments, this initial prioritisation for the Future Investment Strategy would take overall allocated spend – both indicative and committed – to £627m. This is £48m above currently identified funding sources although, as noted above, the £25m investment in energy infrastructure would be paid back.

List for future prioritisation

3.10. Beyond the proposed initial list set out above, the GCP will need to consider other investment sources to meet the match funding commitment and fund any further priority schemes. Schemes that could be considered include:

- Potential to contribute funding to other priority transport schemes, for example Cambridge South Station;
- Decision about delivery of greenways, including possible phasing, and any further cycle projects to tackle gaps in the network;
- Further smart projects. To date, the smart workstream has been the most successful at pulling in match funding, thereby offering more impact for GCP investment;
- How to best use GCP resource to meet the City Deal aspirations on housing – considering leveraging other funding schemes or generating investment for larger projects; and
- Further proposals resulting from completion of current studies.

3.11. At this stage it is suggested that all of the above schemes are considered for prioritisation. However, this shouldn't and doesn't prevent further schemes being considered under the criteria outlined in this paper.

4. Next Steps and Milestones

4.1. The Future Investment Strategy sets out the GCP's forward programme, and will sit alongside other preparations for the Gateway Review. Work will continue throughout 2019 to identify match funding and any further work on the prioritisation of projects will be brought back to the Executive Board and Joint Assembly.

4.2. In addition, the GCP continues to work closely with the Combined Authority to ensure that key documents such as the Local Transport Plan and the Non-Statutory Spatial Plan are developed alongside this Future Investment Strategy.

4.3. The Future Investment Strategy is not a fixed document and will need to evolve beyond the period of the 2019 Gateway Review to factor in developments such as any future revenue-raising schemes, as well as the developing response to the CPIER across the area. This may mean being able to prioritise more investments, and/or make investments across a greater range of activities. It may also mean looking at whether the current assurance framework can support a greater range of activities beyond its transport focus that enable the GCP to make the most of the City Deal funding.

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GREATER CAMBRIDGE PARTNERSHIP

Growing and sharing prosperity

Delivering our City Deal

Report To: Greater Cambridge Partnership Joint Assembly 27th February 2019

Lead Officer: Peter Blake, Director of Transport

A10 FOXTON LEVEL CROSSING BYPASS AND PARKING AT FOXTON RAIL STATION

1. Purpose

1.1. This report sets out the review work undertaken on the Foxton Level Crossing and rail parking options in the vicinity of Foxton station.

1.2. The Executive Board agreed in February 2018 to a review of the Network Rail GRIP 2 work undertaken on the Foxton Level Crossing and further work to be undertaken towards the development of 'Outline Business Case' for a preferred option for a bypass of the crossing and the exploration of the opportunity for Foxton Station to act as a Transport Hub with a Park and Rail facility for onward rail trips into Cambridge and Cambridge North stations, and the proposed, future Cambridge South station.

1.3. Reducing journey time delays and promoting local rail services supports the Greater Cambridge Partnerships (GCP) vision of creating better, greener transport networks, connecting people to homes, jobs and study, and supporting economic growth.

1.4. The Joint Assembly is asked to comment on the report. The Executive Board will be asked to approve the final scheme design.

2. Key Issues and Considerations

Background

2.1 The A10 south is currently heavily congested during the peak hours and the level crossing causes a significant delay to private vehicles commuting onwards to Cambridge. Delay, caused by the down time of the rail barrier, at the level crossing in the peak hour can be between 15 – 20 mins. Further services on the rail line stopping and passing through Foxton station are proposed by Network Rail and this will result in further delay at the level crossing.

2.2 Cambridge has seen above national average growth in rail passengers over the past decade including along the Cambridge line between Royston and Cambridge. With 62% growth at Cambridge station and 47% at Foxton, demand is continuing to grow on the rail network. Foxton Station currently has no private vehicle car parking and there is observed fly parking in the village using the rail line to commute into Cambridge and London.

2.3 The A10 currently takes around 16,000 vehicles per 12-hour period in the Foxton area. The presence of a full barrier level crossing significantly limits the capacity of the route. Currently the Shepreth Branch line typically takes four trains an hour in each direction, one or two which stop at Foxton. The spacing of trains and volume of traffic means that queues do not always have the opportunity to clear the level crossing in peak periods.

2.4 Growth in traffic volumes forecast and the increase in service's using the Kings Cross line, stopping or passing through Foxton, will result in an increase delay and congestion at Foxton level crossing. Additional planned trains and the potential for East – West Rail, including expanding the rail line, could further impact upon journey times and reliability of the route.

2.5 The Foxton crossing had previously been developed to GRIP 2 stage which established the scope of the scheme and confirmed feasible options for the route. The Executive Board agreed to develop this work to further explore the case for removing the level crossing.

Traffic Volume Projections

2.6 Traffic growth across South Cambridgeshire is forecast to increase generally by almost 40% in the morning peak by 2031, meaning time spent in congestion will more than double.

2.7 On the A10 in the Foxton area, traffic flows are predicted to rise between 23% (TEMPRO growth) and 40% (wider South Cambridgeshire peak hour growth) to a total of up to 22,000 vehicle movements over a 24 hour period by 2031 with the removal of the level crossing. This growth will impact upon local communities and the wider transport network with careful management and mitigation.

3. Review of Scheme – Costs and Benefits

Foxton Level Crossing

3.1 The Options Assessment for the removal of the level crossing involved scoring eight bypass options each against a range of Strategic, Economic, Financial, Commercial and Management evaluation criteria taken from the DfT WebTAG Business Case Themes. To support the assessment process, high level desktop studies of current ecology, landscape/heritage value, geotechnical and air quality assessments, within the alignment areas of the eight bypass route options, were undertaken.

3.2 Of the eight bypass route alignment options assessed, four received a positive assessment score and are recommended for further development and assessment, as illustrated in Figure 2 below. All four route alignment options would require further appraisal for provision of either an overbridge or underbridge infrastructure.

3.3 Assessed alignment options of Foxton level crossing bypass can be seen in Figure 2. The range of costs reported for the options are between £15,500,000 and £40,000,000 but vary significantly as some options involve bridges or underpasses. In general terms an underpass is a more expensive option. The BCR of the medium Option (Option 4), without a footbridge, has a BCR of 1.76. This reflects as a 'Medium Value for Money' (VfM) category using Department for Transport criterion.

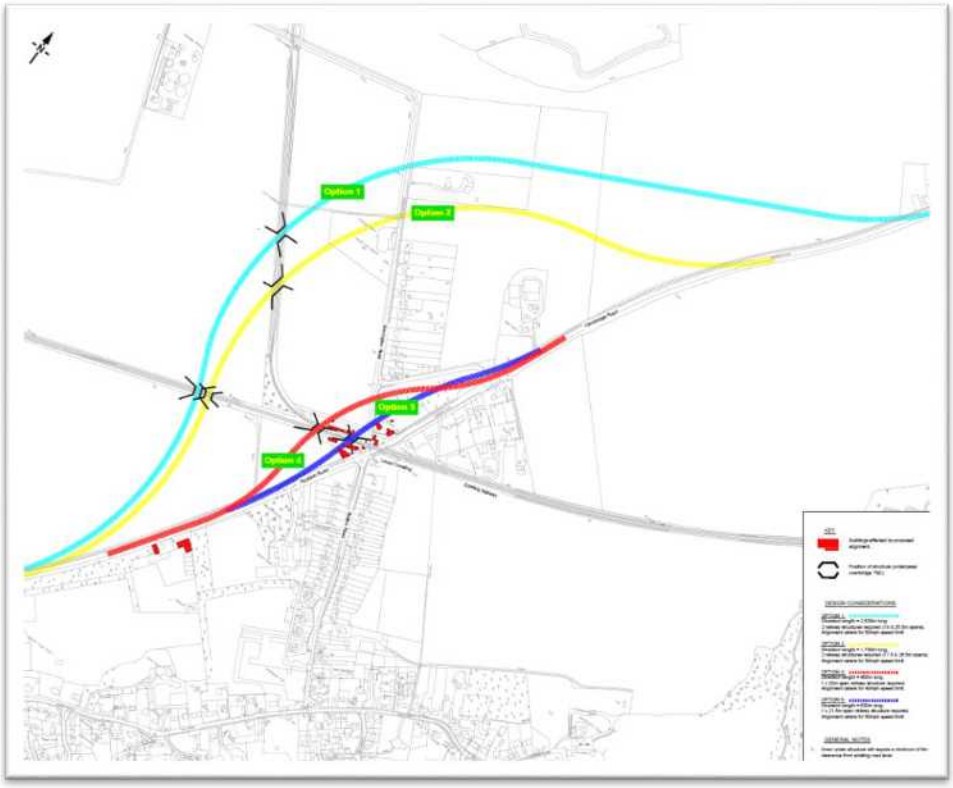

Figure 2: Alignment options of Foxton level crossing bypass

Foxton Rail Station parking

3.4 Foxton Park and Rail Executive Board Report (Mott MacDonald) summarises the conclusions from the options assessment carried out to date. This concluded that Foxton would be the best site for a Park and Rail site between Royston and the M11 providing commuter journeys into Cambridge.

3.5 The scheme has progressed through a series of optioneering steps. The aim of this process was to determine an appropriate location for the proposed Park & Rail scheme. The process began by identifying the need for intervention and investment in a Park & Ride transport hub along the A10 Royston to Cambridge.

3.6 Location specific options were initially identified based on the ability to provide sufficient land to accommodate the estimated number of required parking spaces as modelled. Additional options were identified that included an option to utilise land already in the ownership of CCC and an option to the south of Foxton Station. The options were scored score against each of the selected themes based on the appraisal of the criteria and sub-criteria. The option assessment process considers 6 potential sites in the vicinity of Foxton.

3.7 Assessed locations for a Park and Rail Transport Hub at Foxton can be seen in **Figure 3**. It is considered that the highest scoring locations that should be further developed and assessed are options 4a and option 1. Demand modelling has been undertaken and forecast that there is a suppressed demand for a Park and Rail Transport Hub at Foxton to cater for approximately 400 spaces which could rise to 715 spaces in 2031 (including demand generated from the opening of Cambridge South Station). The range of costs reported for the options are between £4,290,000 and £5,580,000 (a further breakdown of the costs are available in the SOBC report). Based on the initial BCR values for all four short listed options,

which include options with and without the level crossing bypass, the Foxton Park and Rail Transport Hub scheme has a BCR above 2 falling into a 'High value for money' category using Department for Transport criterion.

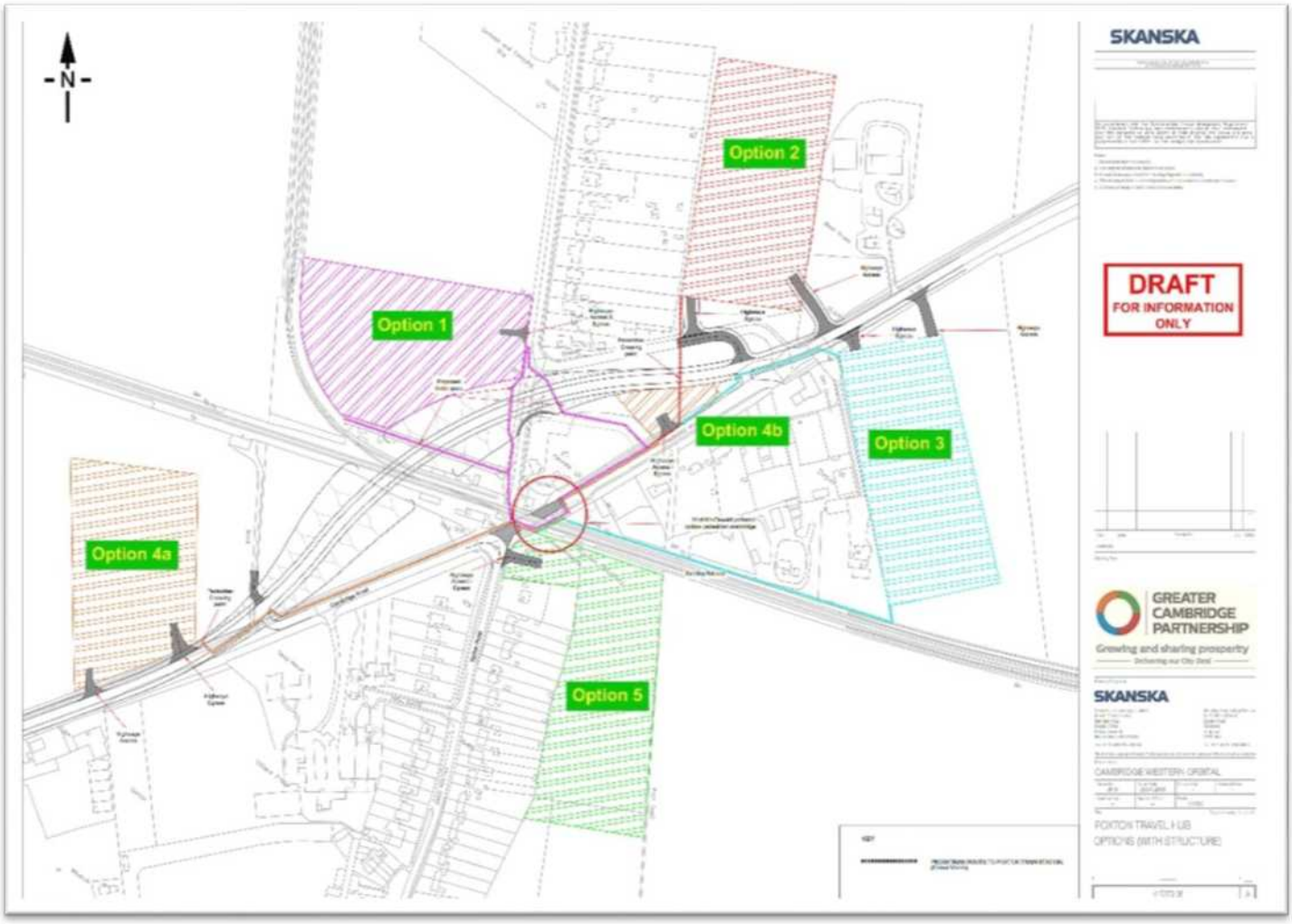

Figure 3: Foxton Park and Rail options with Level Crossing Bypass

4 Emerging Recommendations

4.1 The Foxton bypass scheme and the Foxton Park and Rail Transport Hub proposal share commonalities with regard to scheme objectives, potential site locations and access to the Park and Rail site. However, neither scheme is reliant on the other being delivered; both schemes can be delivered independently.

Foxton Station Parking

4.2 The provision of a Park and ride Transport Hub along the A10 Royston to Cambridge corridor is ideally positioned to improve access to new employment sites in Cambridge from the corridor's villages and towns. The scheme supports the Greater Cambridge Partnership (GCP) aims and objectives of enhancing levels of public transport connectivity into and across Cambridge, and has a high level of synergy with other proposed schemes including the M11 Park and Ride scheme and Cambridge South station. Cambridge City and South Cambridgeshire Local Plan and **North Hertfordshire's** draft Local Plan show a significant level

of growth on the A10 corridor and the provides a sustainable mode of transport for onward travel to the Cambridge Southern Fringe, Cambridge Northern Fringe or Cambridge City Centre, for people who would otherwise travel by private car. This is aligned with the GCP aims and objectives. The scheme has the potential to reduce congestion and enhance journey time reliability.

Foxton Level Crossing

4.3 The Foxton level crossing bypass scheme has the potential to improve both journey time reliability and the connectivity of the A10 corridor. However, removing the level crossing will significantly increase the volumes of traffic along the route which, if not effectively managed, will impact significantly upon local communities and the wider highway network.

4.4 Removing the level crossing in isolation would therefore compound the traffic situation locally for little gain across the wider network which would not support the Partnership's vision for a creating better, greener transport networks, connecting people to homes, jobs and study, and supporting economic growth. The business case work to date also supports delivery of a bridge, rather than a tunnel, which has less support in the local community.

4.5 The scheme to remove the level crossing should therefore be considered alongside wider improvements to the A10 and discussions should be undertaken with the Combined Authority, as the strategic transport authority for the area, on next steps.

5.0 Next Steps and Milestones

5.1 The report is to brief members on the emerging outputs of the review work undertaken on Foxton Level Crossing and Parking at Foxton Station.

5.2 Discussions should take place with the Combined Authority on developing proposals for removing the level crossing in the context of a wider A10 review. The Executive Board will be asked to consider the next steps on developing parking at Foxton Station and whether a public consultation over the summer as part of a process to develop an Outline Business Case is appropriate.

Source Documents

Foxton Park and Rail SOBC
Foxton Level Crossing SOBC

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GREATER CAMBRIDGE PARTNERSHIP

Growing and sharing prosperity

Delivering our City Deal

Report to: Greater Cambridge Partnership Joint Assembly 27th February 2019

Lead Officer: Peter Blake, Director of Transport

CAMBRIDGE BIOMEDICAL CAMPUS TRANSPORT NEEDS REVIEW

1. Purpose

1.1 In 2017, The Greater Cambridge Partnership (GCP) Executive Board identified the need to establish a robust evidence base for the campus area to help inform future investment and planning decisions for the Campus partners, the GCP and other key stakeholders including Local Authority partners. The Joint Assembly is asked to consider and comment on the emerging outputs and proposals from the resulting Cambridge Biomedical Campus (CBC) Transport Needs Review. The full report and supporting documents have been published on-line and are accessible via the links on the covering agenda.

2. Key Issues and Considerations

Background

2.1. The CBC on the southern edge of Cambridge, is a major asset in the development of the UK's life science research, teaching and healthcare industries. It contributes to Greater Cambridge's position as one of the UK's most successful cities in terms of economic indicators, such as productivity and knowledge-based jobs. This success is attributed to being a networked and connected city region, characterised by world-leading innovation. AstraZeneca will shortly move into its new corporate headquarters and global research centre at CBC. Royal Papworth Hospital and the life-science company Abcam will also be relocating to CBC in the near future. Further growth is anticipated to 2031 and beyond, with this development serving to increase the number of staff and visitors to the site. Economic success to date has been widely celebrated in the Greater Cambridge Region, but it is now contributing to transport congestion that threatens to choke further economic growth and compromise high quality of life. The CBC is a key part of this. There are already concerns about access to, and congestion around, the site. The level of near-term and long-term growth will lead to significantly increased travel demands from patients, visitors and employees. It is critically important that transport access to this site meets demand, so that this investment and economic growth is supported.

2.2 The CBC Transport Needs Study has been developed with key partners and the level of stakeholder involvement in this study has been incredibly positive, with full involvement from partners at CBC including Cambridge University Hospitals Trust and the University of Cambridge, as well as South Cambridgeshire District and Cambridge City Councils.

2.3 The focus of the study has been on the impacts of the significant, larger infrastructure proposals being brought forward by the GCP and the Cambridgeshire and Peterborough Combined Authority (CPCA), on the CBC area. The study has assessed the likely impacts of these interventions and undertaken an evaluation as to what they mean for the Campus going forward and when any benefits may be realised. It has also looked at the strategic fit of a proposed new station at Cambridge South adjacent to the CBC, options for this new station, the forecast passenger demand, potential economic benefits and what other local transport measures are likely to be required to ensure that it functions most efficiently, whilst also maintaining the CBC aim of being a sustainable travel campus.

2.4 The study itself is split into 3 parts:

2.5 **Part 1** of this Study looks at the evidence on transport demand and supply, to build up a picture of what travel to CBC looks like now and what it could look like in 2022 with the planned growth. It identifies Potential Interventions to help manage growth in the short term, including improving access via foot and cycle, improved wayfinding, and addressing gaps in current bus service provision.

2.6 **Part 2** looks at transport demand and supply from 2022 to 2031 and how this could change as a result of the proposed Cambridge South Station. It also identifies additional Potential Interventions in the longer term, and Measures that could help to support access to the proposed Station.

2.7 **Part 3** assesses the impact of planned measures being taken forward by the GCP and CPCA (including Cambridge South Station) as well as the other Potential Interventions identified in Parts 1 and 2, in terms of highway access to CBC. Part 3 also assesses the impact of current, proposed phasing for these schemes on the level of highway trips to the CBC site and the subsequent impact on the car parking both on and off street for the Campus.

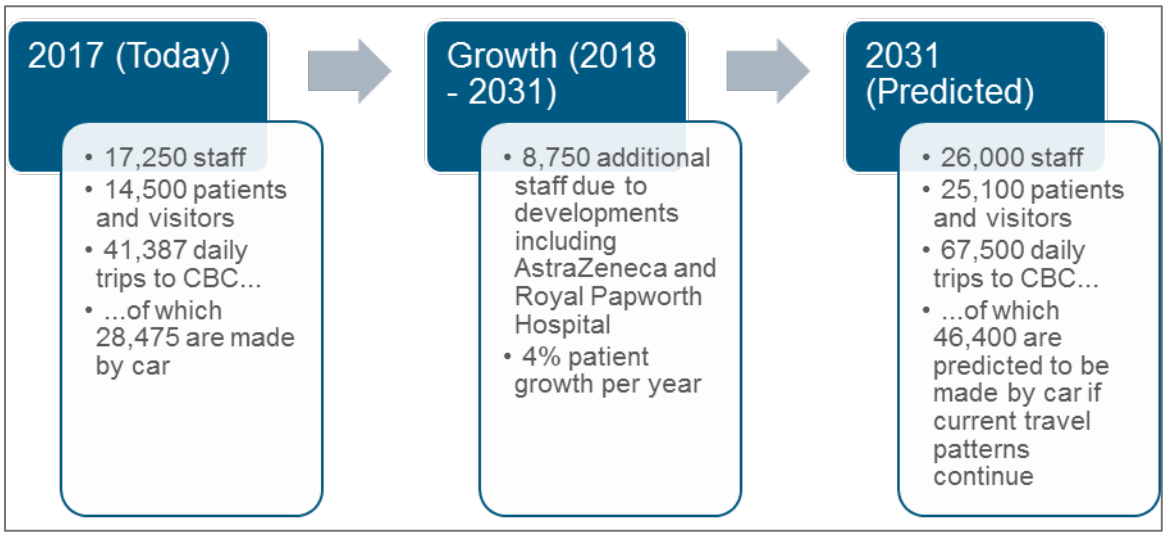
2.8 The planned GCP schemes assessed and tested through this study include:

- Cambridge South East Transport Study – CAM Phase 1;
- Greenways (Fulbourn, Linton, Sawston, Melbourn);
- Chisholm Trail;
- Cambourne to Cambridge – CAM Phase 1;
- West of Cambridge Package;
- Cambridge South West Park and Ride (near to j11 of M11);
- Expansion of Trumpington Park and Ride;
- Cambridgeshire Autonomous Metro (CAM);
- Cambridge South Station;
- The other Potential Interventions identified in this Study; and
- Demand management measures to encourage use of sustainable modes of transport.

2.9 In terms of the 'other potential interventions' proposed through this study, these have focussed on sustainable forms of transport, such as Walking, Cycling and Public Transport, as well as Behavioural Change programmes, and closely tie into the aims and objectives of the CBC's own Transport Strategy. Where the evidence has suggested potential for a need for larger, so called 'big ticket' interventions for the Campus area, these have aligned with the list of planned schemes mentioned above.

Growth

2.10 The growth proposed on site is set to substantially increase the demand for travel to the site, exacerbating the existing transport issues, such as congestion on the surrounding road network, car and cycle parking availability on site, displaced car parking on surrounding streets, gaps in Public Transport provision and low levels of walking as a mode share. Some of the key figures are shown in the figure below:

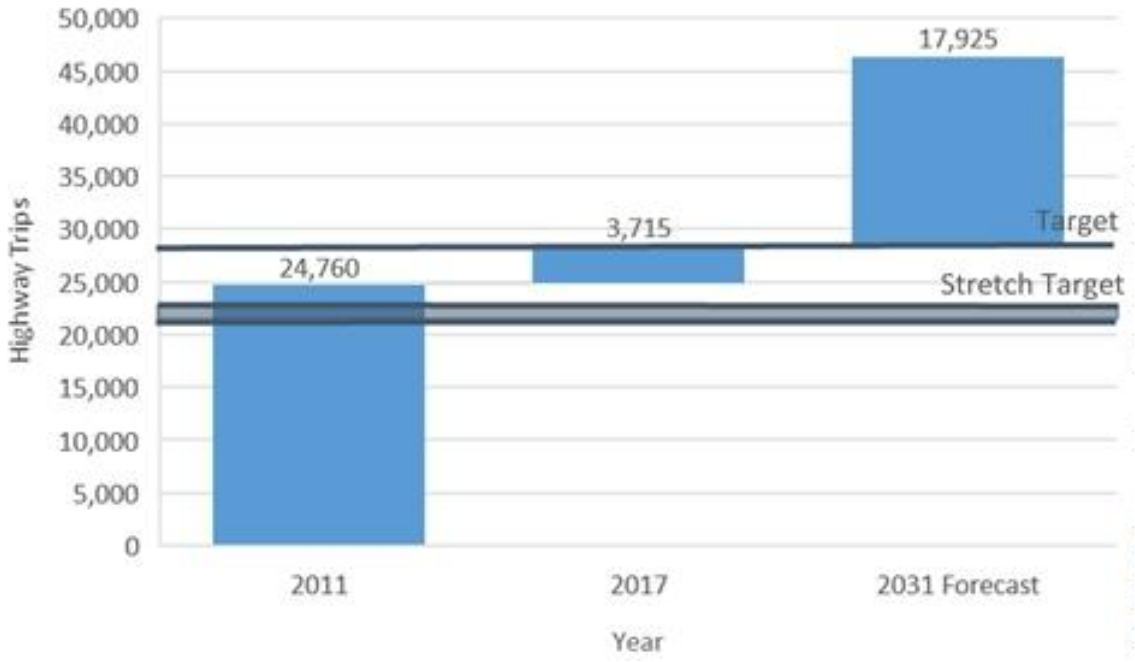


Targets

2.11 In order to helpfully assess the impacts of any proposed interventions on the Campus area, the study has assumed two key targets for highway trip reduction:

- **Baseline Target:** Maintaining traffic at 2017 (current) levels up to 2031; and
- **Stretch Target:** A 10% to 15% reduction in traffic from 2011 levels, which is aligned with the GCP City Access Strategy.

Target for Highway Trip Reduction



2.12 The graph above shows the number of highway trips in 2011 was 24,760, it also highlights that the subsequent increase to 2017 (the study baseline) was an additional 3,715 trips and that the forecast is for a further increase of 17,925 trips to 2031. In order to maintain traffic at the 2017 (baseline) levels **Target**, the additional 17925 car trips forecast to 2031 will need to be removed from the network and replaced with trips made by sustainable modes of travel.

2.13 To hit the **Stretch Target** of the 10-15% further reduction on baseline levels, the number of car trips to remove is even higher, up to 25,354 to remove/replace with sustainable modes. This would deliver a mode share of Car:Non-car of 31%:69%.

2.14 Although these are challenging targets, it should be noted that most of the growth is yet to happen, and will also happen incrementally over the next 12 years in line with development coming forward. It is also important to state that there is a window of opportunity to provide sustainable alternatives before car-based travel patterns are established.

3. Options and Emerging Recommendations

3.1 As the Campus grows, highway trips are expected to continue to grow up to 2031. Much of the growth is happening in the first 5 years, with the likes of Royal Papworth Hospital, Astra Zenica and Abcam due to move into the Campus from 2019.

Short Term Proposed Interventions

3.2 In advance of some of the larger GCP and CPCA schemes coming online, the study has proposed some short term measures to help deal with the initial growth in the years to 2022. These have focussed on sustainable modes of travel and are closely aligned with projects already proposed within the CBC's own Transport Strategy. There is a need to carry out further scheme development work in the near future to turn these from high level, 'long list' interventions, into worked up and costed proposals. Appendix A covers these in more detail. These include:

- Walking and cycling measures.
- Public Transport and Park and Ride measures.
- Behavioural change and incentivised travel measures.

3.3 The study also identified an urgent need for a direct bus or shuttle bus from the Papworth area specifically for the transition of staff moving across to the Campus as Papworth moves on to site. Likewise, increased Park and Ride capacity for staff accessing the Campus is identified in the study as needed in the first 5 years (to 2022) which supports ongoing work by the GCP. The study highlighted three areas where increased Park and Ride capacity could and should come forward:

- At the existing Trumpington site.
- At the existing Babraham Road site.
- A need for a new, large Park and Ride site to the south-west of the Campus.

Longer Term Proposed Interventions (without Cambridge South Station)

3.4 As well as supporting and assessing the impacts of the larger infrastructure proposals being taken forward by the GCP and CPCA, the CBC study has also assessed gaps in the current and future travel supply and demand to come up with high level, potential interventions to

support movement to, from and within the Campus, in the event of no new station at Cambridge South.

3.5 These potential interventions are covered in more detail in Appendix B and range from Public Transport Proposals, such as bus and Park and Ride improvements, to options for altering car parking, altering work and shift patterns and also 'softer measures' such as behavioural change initiatives, car clubs, lift sharing and journey planning tools. There are also more walking and cycling proposals, building on those covered for the short term need.

3.6 These schemes will need further scheme development work in the near future to turn these from high level, 'long list' interventions, into worked up and costed proposals. There may also be a requirement to carry out a prioritisation exercise to identify which of these potential schemes can best support the related GCP and CPCA schemes, including Cambridge Autonomous Metro (CAM), and therefore deliver the most benefit. These schemes should also be considered as part of the WITH station scenario package of measures, and be developed accordingly.

Cambridge South Station

3.7 One of the key aims of the CBC study was to analyse the strategic fit of the proposed new Cambridge South Station, along with its likely impact on the Campus area and what local transport measures may be required in order to help it operate to its full efficiency. The actual development of the station is work being carried out separately to this study, by Network Rail, the Department for Transport (DfT), Combined Authority (CPCA) and GCP.

3.8 Rail as a mode share for CBC staff is currently low. The rail trips generated by Cambridge South Station will be a combination of abstraction from other stations, modal shift from alternative modes and entirely new trip making.

3.9 The study highlights the significant impact a station at Cambridge South could have on trip generation to the area. The forecasting estimates that 5,800 return trips are predicted to use Cambridge South Station daily. This is broadly equivalent to the total demand for Ely and Royston Stations combined, and would make the station the third busiest in Cambridgeshire, after Cambridge station and Peterborough station.

3.10 The Study lists numerous potential transport measures that could come forward as part of a package to complement the new station. Appendix C covers these in more detail. These include:

- Potential designs and layouts for the station building.
- Preferential access arrangements for the new station (for all modes) taking into account key locations on Campus, desire lines and requirements for mobility impaired users.
- Pedestrian and cycle measures, such as cycle parking and pedestrian crossings, cycle hire and the need to transport cycles on trains.
- Links to the existing public transport network including any requirements to alter public transport routing, the potential for new services, interchange options, plus any timetable and ticketing alignment.

3.11 The study has highlighted a wide range of factors that will need to be managed both in terms of Station design, layout, development and transport infrastructure beyond the

Station. The GCP could consider further scheme development work, alongside Cambridge City Council as local planning authority, to set out the requirements and aspirations in more detail.

Impacts of Proposed Measures

3.12 The potential impact of the proposed measures has been estimated using data from the GCP projects, case studies of similar schemes, the available demand information as well as mode split and census data. The impact of Cambridge South Station and CAM have been measured using two scenarios for both schemes, a 'basic' level of demand and a 'maximum' level of demand. The approach to calculating the impact of CAM on highway trips to CBC is based on the Greater Cambridge Mass Transit Options Assessment Report (OAR) (January 2018):

- **Basic demand for the Station:** based on previous forecasts using standard rail industry methods, updated to reflect growth on Campus.
- **Maximum Station Demand**: a bottom-up approach using CBC staff and patient catchment data based on the assumption that all who could reasonably travel to CBC by rail would do so.
- **Baseline demand for CAM**: a 35% increase in public transport demand, compared to 2015 levels, to represent a modal shift delivered by an improved transit system.
- **Maximum CAM Demand:** a 40% capture of relevant highway demand to represent 40% of all existing highway trips to CBC transferring to public transport. The CAM Study noted that this level of mode shift "*would be unprecedented*" and represented "*the very upper end of what any scheme could realistically achieve*"[1].

3.13 The headline outcomes for the impacts of the various proposed measures are:

- A package of measures is required to help hit the targets for traffic reduction. The measures proposed for the longer term in the event of no Cambridge South Station, should also form part of the package of measures to help deliver the growth and mitigate the traffic impact in the WITH Cambridge South Station scenario.
- The planned GCP schemes, Cambridge South Station and 'other' proposed interventions to complement these (which have arisen through this study) go some way towards achieving the baseline target of keeping traffic levels as they are (a reduction of 17,925 car trips by 2031) from around 2022. Though it should be noted that initial growth on site such as Astro Zeneca, Papworth and Abcam will occur in advance of this, meaning an increase in traffic until 2022.
- Cambridge South Station and a new Park and Ride to the South-West of the city (close to j11 of the M11) are shown to be the first related 'major' schemes to begin to have a significant impact on highway demand.
- However, in order to fully meet the baseline target throughout the period until 2031, accompanying demand management measures are required.
- To reach the stretch target, of a reduction on today's traffic levels of 10-15%, the 'maximum' CAM and 'maximum' Cambridge South station schemes are required (including demand management measures).

3.14 It should be noted that the demand management measures assumed within the CBC study relate to restricting car parking availability on Campus. Other options for demand management measures were considered but have not been assessed.

[1]The Greater Cambridge Mass Transit Options Assessment Report (OAR) (January 2018)

Timeline of Impacts

3.15 The analysis within the study looks at 2031 as an end-point, in line with the current Local Plan horizon for growth. However, between now and 2031, there will be an on-going cycle of growth coming forward at the Campus, to be delivered in different phases and on different timescales. Simultaneously over this time frame, numerous transport schemes are also scheduled to come forward for delivery intermittently, which will impact upon trips to the Campus area.

3.16 Part 3 of the CBC study has used a spreadsheet model to understand the impact of the proposed transport schemes, listed above in section 2.7, mapping this against the current timeline for the growth, in order to highlight when the individual and cumulative benefits of these schemes will be realised.

3.17 This analysis shows that Highway trips to CBC will rise until 2022, with the schemes scheduled to be delivered earliest, such as the South East Cambridge Study, new Park and Ride capacity to the south-west and any focussed walking and cycling interventions partly mitigating the impact of growth (though not quite hitting the baseline target of maintaining traffic at 2017 levels. The graph in Appendix D covers this.

3.18 The highlights are that from around 2022/2023, when some of the largest impact schemes, including Chisholm Trail, Cambridge South Station, a new Park and Ride site close to J11 of the M11, and Cambourne to Cambridge (CAM Phase 1)etc. are in operation, the baseline car trip reduction target is achieved for a period of time. However, the cumulative impact of further growth on site in the mid 2020's is predicted to once again cause traffic to exceed the Target level from around 2027.

3.19 The study also shows that in a scenario where 'maximum' CAM occurs alongside a 'maximum' Cambridge South Station with accompanying parking restraint, these have potential to further reduce highway demand and meet the Stretch Target towards the end of the period (2031).

3.20 The timing of any parking measures is critical to ensuring the greatest impact of Cambridge South Station and CAM.

Impact on Car Parking

3.21 Restricting the availability of car parking on Campus has been tested as a potential demand management measure. A reduction in highway trips leads to a reduction in parking demand at CBC, and creates headroom in the parking supply, which should negate the need to construct future planned car parks on the Campus. The analysis shows that measures such as Cambridge South Station and a new Park and Ride to the South-West of Cambridge (near M11 J11) have a significant, positive impact in the parking demand and supply on-Campus.

3.22 The study also discusses the need to align onsite car parking with measures and policies to tackle off-site ("on-street") parking. Plans for on-street parking controls, throughout the city, including in the CBC area, are being taken forward by Cambridgeshire County Council (CCC) with input and funding from the GCP. These will need to be phased accordingly with any potential transport interventions, especially any on-site parking reductions, to limit the

displacement of those who park on site currently, on to the surrounding streets. The sustainable travel alternatives to parking will also need to be in place prior to reductions in any parking capacity in order to maintain accessibility to the Campus. Without these measures, the availability of on-street parking will limit the effectiveness of other interventions in encouraging modal shift away from private car.

Emerging Recommendations

1. It is critical that the GCP schemes identified as having an impact on the CBC are kept to programme to address short-term continued highway traffic growth, mitigating negative impacts on Campus operation and quality of life.
2. Key stakeholders, including the GCP, the CPCA, CCC, the District Councils, the Rail Industry and partners at the CBC should collaborate to coordinate phasing of planned schemes, growth and any demand management measures, in order to have the maximum impact in the right timescales.
3. Carry out further scheme development work on the proposed measures identified to inform the development of the Cambridge South Station, building on the requirements and opportunities identified in this Study. This should focus on maximising the success of the Station in encouraging sustainable travel to CBC.
4. Further Scheme Development work on the other Potential Interventions identified in this Study is required. This could include an exercise to identify possible 'quick wins' to help address the initial highway growth, and also a prioritisation exercise to identify which of these potential schemes can support the related GCP and CPCA schemes and therefore deliver the most benefit. This should commence as soon as possible.
5. There is a need to do a piece of work to understand how and when on-street parking controls in the vicinity of CBC can be introduced, and to prioritise them as appropriate. The timing and phasing of any controls to on-street car parking needs to be very carefully considered, to avoid spreading the parking problem elsewhere and to ensure that accessibility to the CBC, particularly the hospitals located there, is not negatively impacted.

4. Next Steps and Milestones

4.1. This report is to brief Members of the Joint Assembly on the emerging outputs from the CBC Transport Needs Review, and to provide an evidence base for future investment and planning decisions in the CBC area and to help make the case for Cambridge South Station.

4.2. It is essential that plans to improve transport across the wider CBC are delivered. The GCP will continue the dialogue with the CBC partnership, at a senior level, to cement joint working and secure delivery of robust planning and implementation of the recommendations of the CBC Transport Needs Review Study.

Appendix A

Part 1 Potential Interventions (short term)

These are high level solutions and should be treated as a recommendation for further development and assessment of benefits and costs from Part 1 of the Study.
Within each of the categories below, the Potential Interventions have been listed in a broad priority order (1 being the highest priority). Nevertheless, all Potential Interventions are seen as providing benefit within the next five years, irrespective of their ranking. The rankings are indicative and would need to be reviewed in the light of further development and assessment. The schemes likely to have the biggest benefit in the immediate short term are listed in section 3.5.

A.1. Potential Walking Interventions

The potential walking interventions are as follows:

1. An audit of existing pedestrian and cycling routes and connectivity requirements within CBC, leading to a strategy for improving the consistency, continuity and quality of these routes. On-site observations found that these routes are currently inconsistent and at times difficult to navigate. Observations also found some footways on site are narrow and uneven in places;
2. Review pedestrian and cycle wayfinding in the light of current routes and those proposed in the strategy described above. This should include the potential for 'best in class' solutions and tying in with current wayfinding strategy elsewhere in Cambridge;
3. Not all junctions have pedestrian crossings, such as the eastern side of the Long Road/Hills Road junction. Ensuring all crossings with pedestrian desire lines have pedestrian crossing provision would help to accommodate future pedestrian trips; and
4. Reviewing lighting levels and perceived security on pedestrian routes within and around CBC. This is because stakeholders expressed concerns about inconsistent lighting levels.

A.2. Potential Cycling Interventions

The potential cycling interventions are as follows:

1. An audit of the pedestrian and cycling routes, and subsequent strategy, as described above;
2. Providing an extensive cycle network to encourage cycling to CBC. The GCP Greenways cycleway scheme will connect local villages to the site and provide cyclists with a safer route into the site;
3. Develop a scheme to provide an attractive cycling route to CBC from the east (Cherry Hinton, Fulbourn and nearby villages), via Nightingale Avenue and the recently-upgraded cycle entrance at Red Cross Lane. For those originating from Fulbourn, access to CBC from the Fulbourn Greenway would involve cycling to Cambridge Railway Station and then along the recently improved cycling facilities on Hills Road or leaving the Greenway early and travelling down Wulfstan Way and Nightingale Avenue. Neither of these routes have dedicated cycle provision at present. Cycle improvements along these routes have the potential to improve access to CBC by cycle from the east;
4. Keep the capacity and condition of cycle lanes under review, to ensure they are in adequate condition to accommodate the additional demand;
5. Enhancements to the existing cycle/pedestrian cut-through via Car Park H and its linkage to Puddicombe Way and onwards to Main Drive. Building on the recently-implemented Hills Road cycling scheme which leads to this cut-through, it could become a high-quality and highly visible pedestrian/cycle access with good links into the rest of the campus;
6. Provide for cyclists to turn right out of Adrian Way into Long Road (an intervention previously identified by the Cambridge Cycling Campaign); and
7. Review the scope for cycle access directly between cycle routes and adjoining buildings, such as future developments between Dame Mary Archer Way and the cycle route to Shelford, and incorporate this into site design briefs.

A.3. Potential Public Transport Interventions

The potential public transport interventions are as follows:

1. Engage with bus operators to identify potential additional direct services to CBC. There are large gaps in direct services to the east, north east and west Cambridgeshire, which may deter users and reduce patronage. Gaps to address would include:
    a. Papworth, especially after the relocation of the Royal Papworth Hospital to CBC;
    b. Ely and Newmarket; and
    c. New developments such as Cambourne West, Bourn, Northstowe and Waterbeach;
2. Consider the potential for dedicated staff shuttle buses to support key specific flows (e.g. Waterbeach Barracks, Eddington and Northstowe) if commercial bus services cannot provide adequately for these;
3. Engage with bus operators to identify improved off-peak services. Consider extending the duration of high frequency service periods to cover more of the pre-AM peak and post-PM peak periods which are particularly used by shift workers. This was one of the key issues identified by stakeholders. If not viable on a purely commercial basis, these may require a degree of financial support;
4. Review the impact of visiting hours and consider interventions to either increase bus capacity at relevant times or encourage visiting at off-peak times;
5. Consider fare promotions for staff, to further increase the attractiveness of public transport;
6. Further promotion of the existing patient courtesy bus through media campaigns and on-site promotional activities. Stakeholders commented that this is a useful service but under-used and under-promoted;
7. Measures to improve the attractiveness and awareness of existing bus services, including additional Real Time Passenger Information displays, amendment of timetables in line with actual journey times, off-bus ticket purchasing opportunities, further promotion and publicity such as face-to-face engagement on-site, and maintaining the condition of the buses and bus stops. These were identified by stakeholders as potentially valuable. This should include additional 'where to catch your bus' information, both to assist bus users and to promote the range of services available, given the complexity of existing bus stopping arrangements;
8. Carry out further work to understand the most desirable medium-term strategy for bus stop location and bus routing within CBC. This should consider and balance the goals of:
    a. Offering passengers convenient access to all parts of CBC, from all bus routes;
    b. Making the service offer comprehensible and 'marketable' as part of encouraging bus use;
    c. Minimising bus journey times and mileage; and
    d. Maximising connectivity to/from a future Cambridge South station;
9. This may ultimately point to a central bus station at the heart of CBC, a central bus spine route through CBC, or another solution, and might require a frequent campus shuttle bus to provide very local connectivity and reduce walking journey times; and
10. Use of EURO6 buses and provision of rapid charge electric vehicle points for use by Taxis only in order to contribute to improving air quality in the area.

A.4. Potential Parking Interventions

The potential car parking interventions are as follows:

1. CCC are considering the extension of the on-street parking controls. This would restrict on-street parking in the streets surrounding CBC. Although this may put additional pressure on parking within CBC, it could encourage individuals to take more sustainable forms of transport;
2. Review existing small pockets of parking, particularly those at the heart of the campus, to identify those where users could be relocated to vacate space for pedestrian, cycling or public realm enhancements, as well as potentially reducing traffic volumes and conflicts in those areas; and
3. Review the management of staff parking demand for existing and future occupiers across CBC, including potential adjustments to pricing structures or eligibility criteria, with the aim of:

4. Maintaining the correct level of parking demand within the available supply, bearing in mind that growing patient and visitor demand will need to get priority; and
5. Evening-out the issues with some parking areas being over-popular and others not fully used.

The potential cycle parking interventions are as follows:

1. Continuation/formalisation of the cycle clearing scheme which removes abandoned cycles, with a potential need to increase frequency if required. On-site observations found significant numbers of cycles that appeared to be abandoned;
2. Work closely with CBC to provide the additional cycle spaces recommended in the 2015 Access to Addenbrooke's Modal Choice Document and identify further areas where cycle parking on-site can be increased an intensified Stakeholders also highlighted the closure of an area, including cycle parking, near the Frank Lee Centre which could be re-opened to provide additional parking quickly;
3. Work with CBC Partners to identify possible funding sources for cycle parking improvements; and
4. Consider whether, as part of a sustainable transport focus, existing car parking spaces could be converted into cycle parking spaces (especially as one car parking space converts into multiple cycle parking spaces). See also recommendation above concerning existing small pockets of car parking that could be converted into cycle parking.

1.2. Potential Park and Ride/Park and Cycle Interventions

The potential Park and Ride/Park and Cycle Interventions are as follows:

1. Increase nearby Park and Ride capacity to encourage those who use/visit CBC to use this as a mode as opposed to parking on-site or on nearby residential streets. Possible interventions include:
    a. Investigate the possibility of increasing the capacity at Trumpington Park and Ride in the immediate short term (by the end of 2019) to help provide capacity for the staff from Papworth travelling on to the site. Any proposals should also investigate if additional bus capacity from the Park and Ride sites is required;
    b. Increased Park and Ride capacity to the south-west of Cambridge, such as that proposed by the GCP, is recommended for years 1-5, to help provide capacity for sustainable mode choice for those using CBC;
    c. Investigate the possibility of increasing the parking capacity at Babraham Park and Ride in years 1-5. Any proposals should also investigate if additional bus capacity from the Park and Ride sites is required; and
    d. Investigate the possibility of having dedicated CBC parking spaces at Park and Ride sites; and
    e. Explore the possibility of moving a proportion of the contractor parking to Babraham Park and Ride, where evidence suggests that there is some available capacity whilst also complimenting this by providing a dedicated shuttle into the development sites as a short-term measure.
2. Provision of a Park and Cycle site outside CBC, to reduce congestion near the site and promote sustainable transport. Cambridge has a very large propensity to travel by cycle, as evidenced by mode share figures. Park and Cycle capacity may also come in the form of a bike hire scheme to and from Trumpington Park and Ride and Babraham Park and Ride, or a bike share scheme throughout the city (such as the existing Ofo scheme), as suggested by stakeholders. This could include formalisation of facilities at the existing Park and Ride sites, including measures such as dedicated areas for parking adjacent to cycle storage locations, with greater numbers and quality of storage facilities for cycles and associated equipment;
3. It is suggested that a Park and Ride for CBC only could be investigated closer to the site to relieve pressure from Trumpington and Babraham Park and Ride whilst providing a prioritised service for those using the site; and

4. Investigate the possibility of provision for dedicated/formalised Park and Cycle facilities from Park and Ride sites. This should include dedicating specific areas of the sites for 'Park and Cycle only', with accompanying facilities such as lockers, cycle parking stands and links to the nearby cycle network.

A.1. Potential Local Highway Interventions

The potential local highway interventions are as follows:

1. Stakeholders suggested improved traffic signals on Addenbrooke's Road could reduce the chance of traffic queues reaching the M11 Junction 11 bridge, which has been observed to be congested due to right turning on traffic on the northbound side of Hauxton Road;
2. Continue to support sustainable travel to reduce dependence on private car modes;
3. Stakeholders suggested the need to review signal timings at the Hills Road access to optimise traffic flow within the immediate vicinity of CBC. This is being monitored by CCC; and
4. Provision of additional electric vehicle charging points on Campus to encourage us of these vehicles to access the Campus.

A.2. Other Potential Interventions

Other Potential Interventions are as follows:

1. Reviewing the attractiveness and promotion of existing car-share options (including the Camshare county-wide platform and the specific arrangements at Cambridge University Hospitals, which include a dedicated parking area for car-sharers). It may be possible to enhance the range of benefits available for car-sharing, such as extending a dedicated/priority parking offer across CBC;
2. Set up mechanisms for staff of new occupiers, such as relocated Royal Papworth Hospital staff, to receive travel planning advice and support prior to relocation, to promote knowledge of their options when accessing CBC and ensure that sustainable travel patterns are established from the start. This could be in the form of an online travel plan through which the business provides incentives for employees to undertake. Through this, employees could request face-to-face guidance if required;
3. Annual surveys should continue for monitoring purposes, with a view to implementing new strategies should the existing proposals be ineffective;
4. Control of HGVs entering the Campus through an off-site freight consolidation point. This would reduce the number of HGVs accessing the site and contribute to improving air quality in the area; and
5. Inclusion of rapid electric charging points for taxis to encourage taxi fleets to include these vehicles and help improve air quality in the area.

Appendix B

Ref	Potential Intervention	Description	Benefit	Dependency
Potential Bus Interventions				
1	CBC Bus Strategy	A coordinated bus strategy for CBC developed by all stakeholders and bus operators.	Effective bus management, potentially including timetable coordination (through a Qualifying Agreement) where operators overlap, to encourage more use of bus to access the Campus.	Commercial buy-in from Bus Operators and/or suitable subsidies.
2	Season Ticket Loans for Staff	Providing a loan to employees to buy bus season tickets.	Encourage bus travel by making it a more financially attractive alternative to the private car.	Commercial buy-in from Bus Operators and/or suitable subsidies.
3	Subsidised Ticketing for Staff	A contribution toward bus tickets provided to staff.		
4	Free Bus Pass for New / Relocated Staff	New / relocated staff to receive free bus passes that cover the first month of their employment in order to instil positive travel habits from the outset.	Encourage sustainable travel habits to be instilled in new employees before travel behaviour is engrained.	Commercial buy-in from Bus Operators and/or suitable subsidies depending on approach to implementation.
5	Inter-Operator Ticketing	Ability to buy tickets that are useable on all bus services. A detailed description of the potential application of Inter-Operator Ticketing can be found in the Study Report.	Allow bus users to be flexible with their journeys on all services.	Commercial buy-in from Bus Operators and/or suitable subsidies.
6	Bus Hub / Interchange at the West of CBC	A bus interchange located to the west of the site to be served by CGB buses, buses accessing the site via Addenbrooke's Road and Robinson Way.	Provide a coordinated approach to bus services to the West of the Site and provide an interchange point with other transport services. Reduction in walking distance to some destinations compared to the existing Bus Station.	Commercial buy-in from Bus Operators and/or suitable subsidies. Available land on Campus.
7	Reconfiguration of Addenbrooke's Bus Station	An opportunity to expand and rework the existing Addenbrooke's Bus Station, potentially by using the Car Park H land to the north of the existing site or Car Park A adjacent to the existing site.	Increased capacity of the existing bus station.	Available land on Campus.

Ref	Potential Intervention	Description	Benefit	Dependency
8	Permitted Right Turn for Buses and Cycles from Adrian Way	Allow all movements for buses and cycles at the Adrian Way junction with Long Road to enable different routing patterns.	More routing options and freedom for buses to exit via the north of the site instead of Hills Road Roundabout. Cyclists benefit in terms of journey times and routing.	This intervention may require signalisation of the junction. This would be subject to traffic modelling and junction design.
9	Bus service pattern Review to Accommodate Off-Peak Working Hours	Engagement with bus operators to provide off-peak hour services for employees of CBC whose shift pattern includes late or early working.	More travel options for those staff who start work before or finish after the regular bus services operate.	Commercial buy-in from Bus Operators and/or suitable subsidies.
10	Safer Routes to Bus Stops	Based on the outcomes of the pedestrian audit recommended in Part 1, provide suitable lighting and visibility at, and on routes to, bus stops.	Encouraging use of bus services by enhancing perceived safety of access and waiting facilities.	Suitable subsidies/funding.
11	Royston to Cambridge bus service redirected to CBC	Rerouting of the Stagecoach 26 service from Royston to Cambridge to call at CBC. Could involve routing via the CGB or via Addenbrooke's Road and Long Road.	Provide a viable bus service for those staff and visitors residing in Royston (significant cluster as shown in postcode mapping in Figure 5-3 of Part 1 Report) without need for a change at Trumpington Park and Ride. Could lead to a reduction in private vehicles on the road network which could have a positive impact on congestion and air quality.	Commercial buy-in from Bus Operator and/or suitable subsidies.
12	Bus Service from Papworth Everard and Cambourne	Providing a temporary bus service from / to Papworth Everard / Cambourne in advance of the West of Cambridge Package.	Beneficial for those travelling from the west, especially following the Royal Papworth Hospital relocation and considering housing developments at Cambourne West and Bourn Airfield. Could lead to a reduction in private vehicles on the road network which could have a positive impact on congestion and air quality.	Commercial buy-in from Bus Operators and/or suitable subsidies.

Ref	Potential Intervention	Description	Benefit	Dependency
13	Additional Bus Priority on Addenbrooke's Road	Provide bus priority on Addenbrooke's Road, to provide segregated access to CBC.	Improved access for bus services along Addenbrooke's Road with potential positive impacts on reliability and journey times, especially during peak hours.	Available highway land on Addenbrooke's Road.
14	Enhanced CGB Capacity	Provide increased capacity on the CGB to the east of Trumpington Park and Ride, which currently has a single track of approximately 700m.	Increase capacity and facilitate more services.	Technical solution to mitigate constraint imposed by single track section which cannot practically be double tracked in the conventional manner.
15	Bus Priority at Signals in Vicinity of CBC	Allow buses an extended green phase at traffic signals in the vicinity of the CBC site.	More reliability, improved timetable compliance and journey times.	Subject to traffic modelling.
16	Central Spine Road for Buses	Provision of a bus-only route through the centre of the Campus.	Improvements to east-west connectivity, reducing interaction with cars around the Campus and reducing journey times.	Available land on Campus (potentially dependent in turn on hospital redevelopment). Commercial buy-in from Bus Operators.
17	Demand Responsive Bus Service Around CBC Campus	Demand responsive bus service, which could be in the form of autonomous pods, around the CBC site. To be developed in accordance with CBC Bus Strategy.	Out-of-hours bus service to connect with existing transport infrastructure, which could make sustainable journeys viable for those staff who work early or late shifts.	Technology advances. Connections to onward sustainable infrastructure. Coordination with Trumpington Park and Ride autonomous pods trial.
Potential Park and Ride Interventions				
18	Expanding Parking Capacity at Existing Park and Rides to Accommodate Growth	Provide additional parking capacity at Trumpington and Babraham Road Park and Ride sites, as well as at a new Cambridge South West Park and Ride to help manage demand for travel to the CBC site. The Study Report indicates a requirement for approximately 1,500 spaces for CBC users only.	Provide capacity to meet current demand as well as demand displaced by other initiatives related to parking and highway constraints. Could lead to a reduction in private vehicles on the road network close to CBC which could have a positive impact on congestion and air quality.	Dependent on GCP proposals for expansion of Trumpington Park and Ride and provision of a new Cambridge South West Park and Ride.

Ref	Potential Intervention	Description	Benefit	Dependency
19	Direct Bus Service from a New Cambridge South West Park and Ride to CBC	Provide a direct bus service from a new Cambridge South West Park and Ride to CBC without calling at Trumpington Park and Ride, to encourage use of Cambridge South West Park and Ride.	Encourages use of Cambridge South West Park and Ride for CBC users and releases pressure on Trumpington Park and Ride and Hauxton Road. Could lead to a reduction in private vehicles on the road network close to CBC which could have a positive impact on congestion and air quality.	Dependent on GCP proposals for provision of a new Cambridge South West Park and Ride.
20	Extend Existing Patient Courtesy Bus to Babraham Park and Ride	Extension of the existing Patient Courtesy Bus to Babraham Park and Ride, to encourage use of this site by patients who would otherwise drive to CBC.	Makes Park and Ride a more viable alternative for those patients and other users of CBC for whom the door-to-door, more personal service is of particular value.	Viability to extend patient courtesy bus. May require a second bus in order to maintain frequency. Suitable subsidies/funding.
21	Service Directly from Milton, Newmarket and Madingley Park and Rides to Serve CBC[2]	Provide a direct bus service from other Park and Ride sites around the City to CBC.	As CBC becomes a destination for more and more trips from around Cambridge, increased demand for Park and Ride services from all sites could make CBC a viable destination. Encourages more use of public transport around the City.	Commercial buy-in from Bus Operators and/or suitable subsidies.
22	Park and Ride Capacity to the East	Provision of a Park and Ride and Park and Cycle to accommodate demand from the east in addition to Babraham Park and Ride. This could come in the form of the Park and Ride associated with the Cambridge South East Transport Study depending on exact location, which could provide some eastern Park and Ride Capacity.	Provides additional Park and Ride Capacity and offers a connection with the Fulbourn Greenway. A rural cycle hub in the form of a Park and Cycle could be provided for the Fulbourn Greenway in the interim. Could lead to a reduction in private vehicles on the road network close to CBC which could have a positive impact on congestion and air quality.	Dependent on land availability and commercial buy-in from Bus Operators and/or suitable subsidies.

[2] Table 5-2 in the Part 1 Report shows that staff origins are evenly spread around the City but a large proportion of staff (48%) approach the site from the south west. Enhanced Park and Ride service provision could help disperse trips and lessen the impact on the highway network.

Ref	Potential Intervention	Description	Benefit	Dependency
23	Bus (or Autonomous Pods) to/from CBC/ Park and Rides Before and After Main Park and Ride Service Ends.	Engagement with bus operators to provide services to/from Park and Ride sites before and after the core City Centre service has finished, to accommodate early/late shift working. This could consist of a dedicated service (e.g. use of the patient shuttle bus when it is not in use) or an extension of existing services.	To make Park and Ride a viable alternative to the private car for those with variable shift patterns. Could lead to a reduction in private vehicles on the road network close to CBC which could have a positive impact on air quality.	Commercial buy-in from Bus Operators and/or suitable subsidies.
24	Priority Access for Buses to/from Cambridge South West Park and Ride	Bus priority measures into the new Park and Ride site, segregated from other Road users.	Segregated and reliable access to the site which could also be used by cyclists. This increases the opportunity for a Cambridge South West Park and Ride to be a viable Park and Cycle Option.	Dependent on GCP proposals for provision of a Cambridge South West Park and Ride.
25	Effective Access for Vehicles to/from South West Park and Ride	Explore potential for Park and Ride lane or segregated access from M11 Junction 11 for the proposed new Park and Ride. Real-time information about space availability at Trumpington Park and Ride and a new Cambridge South West Park and Ride, as well as journey time to Trumpington Park and Ride, could help manage demand.	Reduces the pressure on M11 Junction 11 roundabout and encourages use of the Park and Ride site. Manages demand between the two Park and Ride sites. Could lead to a reduction in private vehicles on the road network close to CBC which could have a positive impact on congestion and air quality.	Dependent on GCP proposals for provision of a Cambridge South West Park and Ride.

Ref	Potential Intervention	Description	Benefit	Dependency
26	Further restrictions on Car Access	Restrictions on the majority of vehicles entering the Campus, with exceptions for emergency vehicles, A&E and Rosie emergency access, blue badge holders, staff access required due to limited alternative options and specific site needs, servicing (off-peak), buses, taxis and perhaps some car sharers.	High positive impact on the road network, and air quality, within and around CBC with vehicles being encouraged to use Park and Ride sites as an alternative to driving to site.	Dependent on suitable alternatives for travel to the site – bus and Park and Ride initiatives especially. Any restriction will need to reflect and accommodate the 24/7/365 nature of many functions on CBC, and those staff and patients for whom alternatives are not available or suitable.
Potential Parking Interventions				
28	Extension of the On-street Parking Controls.	Extension of the on-street parking controls to streets surrounding CBC, focussing on the short-term management of on-street parking impacts and aligning the implementation of any further controls with the phasing of potential interventions over the medium to long term.	Benefits for residents in terms of parking capacity and congestion and air quality in residential areas. Encourage CBC users to park in designated car parks on-site or at Park and Ride sites. Safer and more pleasant walking and cycling in residential streets due to reduced traffic volumes, emissions and noise.	Dependent on suitable alternatives for travel to the site – bus initiatives and Park and Ride initiatives especially. This Potential Intervention is also subject to statutory public consultation process. Implementation should be aligned with other control initiatives such as Potential Intervention 31 (Restriction on Car Park Growth) to avoid parking issues elsewhere in order to holistically manage, delivery, impacts and benefits.
29	Bring Cycle Parking Expansion Forward	Implement planned cycle parking sooner than predicted to accommodate demand and encourage further use. This could also include provision and parking for hire or pool cycles and provision for charging electric cycles.	Ensure that supply meets demand and a surplus of spaces are available in appropriate locations to encourage further use and reduce the chance of users having to search for a space.	Dependent on proposals by CBC and other occupiers.

Ref	Potential Intervention	Description	Benefit	Dependency
30	Restrictions on Car Park Growth	Restrict the level of car park growth on-site. Consider whether those car parks planned/approved will be beneficial to the overall transport picture.	Discourages vehicle trips to the Campus and encourages use of sustainable modes and Park and Ride Sites. Reduced car trips to the Campus could have a positive impact on congestion and air quality in the area.	Dependent on suitable alternatives for travel to the site – bus and Park and Ride initiatives and capacity especially. Should be implemented with other control initiatives such as Potential Intervention 29 (Extension of the on-street parking controls) to avoid parking issues elsewhere.
31	Needs Based Prioritisation of Parking Allocation	Allocation of parking on-site based on a hierarchy of need with priority given (as now) to patients and visitors followed by staff on a basis of need.	Discourages vehicle trips to the Campus and encourages use of sustainable modes and Park and Ride Sites. Reduced car trips to the Campus could have a positive impact on congestion and air quality in the area.	Dependent on suitable alternatives for travel to the site – bus and Park and Ride initiatives especially. Dependent on staffing to manage. Any restriction will need to reflect and accommodate the 24/7/365 nature of many functions on CBC, and those staff and patients for whom alternatives are not available or suitable.
Potential Peak Hour Spreading Interventions				
32	Review Staggering Shift Patterns of Workers	Varying the start and finish times of staff to stagger arrival and departure to CBC.	Distributes trips across the day and reduces the likelihood of the demand for the site peaking at the same time as the surrounding highway network.	Dependent on suitable alternatives for travel to the site outside of core hours – bus and Park and Ride initiatives especially.
33	Review Potential to Change Visiting Hours	Changing or staggering visiting hours so that the peak arrival and departure times do not coincide with the network peak hours.		Agreement with CBC and coordination between all wards on Campus.
34	Restrict Non-Essential Deliveries During Peak Hours	Restrict all non-essential deliveries to arrive at CBC outside of the peak hours.		Coordination between all stakeholders on Campus as well as delivery companies.
Potential Cycling and Walking Interventions				

Ref	Potential Intervention	Description	Benefit	Dependency
35	Local Connections to the West	Review and improvement of connections for pedestrians and cyclists to the west of the Campus via Alpha Terrace and Anstey Way towards Grantchester.	Cycle and pedestrian connections towards Grantchester and further afield towards West Cambridge.	Land availability, existing carriageway and footway widths.
36	Greenways Project Implementation and Connection with CBC	Creation of a link between the Fulbourn Greenway and CBC for those travelling from the east, routing via High Street, Queen Edith's Way, Nightingale Avenue and Red Cross Lane.	Enhanced cycle connections to the east of the Campus, particularly towards Cherry Hinton and Fulbourn.	Land availability, existing carriageway and footway widths.
37	Audit of Pedestrian and Cycle Routes and Connectivity Requirements within CBC	Audit of pedestrian and cycle wayfinding and infrastructure.	Lead to a strategy for improving the consistency, continuity and quality of these routes.	Identified and Active Transport Coordinators.
38	Segregated Cycle Routes On-site	Where possible, cycle routes should be segregated from traffic and pedestrians.	Reduce the risk of conflict between modes.	Land availability and existing footway and carriageway widths.
39	Monitoring the Cycle Demand on an Annual Basis	Annual monitoring of cycle parking capacity and condition, as well as an audit on cycle infrastructure and connections across the site.	To ensure that if there is a shortfall in supply or defects are highlighted, they can be rectified within an appropriate timescale. This information could be linked to larger monitoring systems and used in wider Cambridge studies.	Identified and Active Transport Coordinators.
		Potential 'Other' Interventions		
40	Consolidation of Non-Urgent / Time Sensitive Deliveries	Consolidation of deliveries at an off-site centre (perhaps at a Park and Ride site) to limit the number of delivery vehicles accessing the CBC site, and increase the use of off-peak hours for the final delivery leg to site.	Reduces the number of delivery vehicles accessing the site.	Dependent on buy-in from CBC occupiers on site and delivery contractors.

Ref	Potential Intervention	Description	Benefit	Dependency
41	Integrated Online Journey Planning Tool	Creation of an online travel portal on CBC and CUH websites for use by staff, patients and visitors.	Increase knowledge of and confidence in the range of travel options available to staff and visitors of the Campus. Priority should be given to sustainable modes.	Coordination between all stakeholders on Campus – advertising through all organisations.
42	Personalised Travel Planning for Staff (and visitors if requested)	Personalised journey planning for site occupants / staff. Those that register for a personal travel plan could receive a free bus ticket or equivalent.	Increase knowledge of the range of travel options available to staff and visitors of the Campus. Priority should be given to sustainable modes.	Coordination between all stakeholders on Campus – advertising through all organisations.
43	Car Sharing Initiatives	Car sharing initiatives including guaranteed ride home (whereby car sharers are provided with a return journey in an emergency or unforeseen circumstance), dedicated or priority parking spaces and discounts on parking.	Reduce the number of single occupancy vehicles on the road network. Reduced car trips to the Campus could have a positive impact on air quality in the area.	Coordination between all stakeholders on Campus to provide consistent benefits and guaranteed ride home for all employees irrespective of employer.
44	Staff Car Share Database	Dedicated CBC Staff Car Share Database that is coordinated between all Campus Stakeholders. Each organisation currently offers their own closed system, which limits the effectiveness of the scheme.	Encourage car sharing and increased likelihood of a suitable journey match.	Agreement between stakeholders regarding parking arrangements and charges for car sharers from different organisations.
45	Pool Cars/Car Club	A car club or pool cars for use by staff travelling for work or as a guaranteed ride home.	Reduce the need for those who travel for work to use their own vehicle to access CBC. Provide alternative means of travel for staff who cycle, walk or use the bus, for emergencies or occasions when a car is needed. Reduced car trips to the Campus could have a positive impact on congestion and air quality in the area.	Coordination between all stakeholders on Campus to provide consistent services and access to cars.

Ref	Potential Intervention	Description	Benefit	Dependency
46	Travel Advice Centre	Creation of a Travel Advice Centre at CBC for staff and visitors. To provide marketing information, timetables, advice etc.	Increase knowledge of the range of travel options available to staff and visitors of the Campus.	Land availability on-site, or willingness of existing organisation(s) to dedicate space within existing buildings, efficient advertising for staff, patients and visitors. Staffing at appropriate times to capture demand.
47	Encourage Home-Working	Encourage and enable employees to work from home if possible.	Reduces the number of trips on the transport network. Reduced car trips to the Campus could have a positive impact on congestion and air quality in the area.	Buy-in from CBC stakeholders and employers for whom working at home is a viable option.

Appendix C

Potential Interventions required to help maximise Cambridge South Station

Provision	Description	Benefits
Key Access Routes and Desire Lines	Step-free entrances at the north (near the Francis Crick Avenue / CGB / The Green and the Gardens junction) and south (near Addenbrooke's Roundabout). Access to/from these primarily facing towards Francis Crick Avenue, but ideally with additional direct access from the CGB and Addenbrooke's Road. Address crossing/pedestrian/cycle facilities, wayfinding and connectivity to key locations within CBC, as part of the CBC site pedestrian/cycle facility audit proposed in the Part 1 Report.	Supports and prioritises walking and cycling, in turn minimising car use.
Review of Access to Key Origin Stations	Review the footfall impact at stations at the other end of the journey, to identify any necessary access or facility improvements identified. Key locations with potentially significant trip volumes which might include a Park and Ride role include: • Foxton and Royston; and • Waterbeach, Ely and stations to King's Lynn. The review should consider station facilities including: • Car and cycle parking; • Walking and cycling routes close to the station; and • Bus access to maximise the connectivity offered.	Encourages rail access to CBC. Potential to benefit other users at the relevant stations. This Study could incur wider economic benefits as other users at the potentially improved stations would benefit.
Step-free Access and Accessible Routes	The Station itself will be designed with step-free access in accordance with legal and rail-industry requirements. To maximise step-free local access: • Both north and south entrances should be accessible routes; and • The extent of accessible routes throughout CBC, particularly routes between the Station and key destinations, should be reviewed as part of the pedestrian/cycle facility audit proposed in the Part 1 Report.	Step-free access would promote non-car modes throughout the CBC site and to access the proposed Station.
Wayfinding from Key Access Routes	Wayfinding totems should be placed throughout CBC, showing (in addition to any other wayfinding information) routes and walking times to the Station. These should also show live train departure information, as a user convenience and to further highlight the presence of the Station and the connectivity it offers. Other wayfinding options such as app-based information should also be considered as part of a holistic approach integrated with wider Cambridge wayfinding.	Improved rail journey planning, attractiveness and visibility.

Provision	Description	Benefits
High Quality Street Infrastructure	The location and design of pedestrian crossings on Francis Crick Avenue should be reviewed alongside the Station entrance locations to prioritise walking and cycling. These should connect with the step-free access. Urban realm approaches such as raised tables should be considered to support pedestrian and cycle access, providing traffic calming (subject to operational requirements for emergency vehicles and buses) and enhancing the sense of place around the Station. Footways around the site, especially within the vicinity of the proposed Station should be above the desired 2.5m width. Street and footway lighting should be reviewed to identify potential enhancements required for perceived security or due to increased usage. Address any condition or layout issues identified in the CBC site pedestrian/cycle facility audit proposed in the Part 1 Report. Consider the opportunity for a particularly high-quality, 'gateway' treatment of the Station access route linking the north entrance to The Green and the Gardens area.	Encourages sustainable modes through improved safety, journey quality and perceived security.
Cycle Parking	Cycle Parking should include provision for larger cycles used by families (particularly common in Cambridge) and disabled cyclists. Cycle parking facilities should be monitored by CCTV and should be open were possible to improve the perception of safety around the Station. Cycle parking facilities should take into account the existing CBC Cycle Parking Standards. Total cycle parking provision should be sufficient to cope with expected demand.	Encourages cycling through providing sufficient and suitable spaces for a wide range of potential cyclists.
Train/Cycle Interaction	A relatively high proportion of passengers take cycles onto trains. The Station layout and design will need to take account of this and practical experience from Cambridge and Cambridge North Stations.	Further encouragement for mode-shift to cycling, benefiting both CBC and the other end of the journey.
Cycle Facilities within a Cycle Hub	A Cycle Hub at the Station, of a 'five-star' level as defined in the Rail Delivery Group's *Cycle Rail Toolkit 2.*	Further encouragement for mode-shift to cycling.

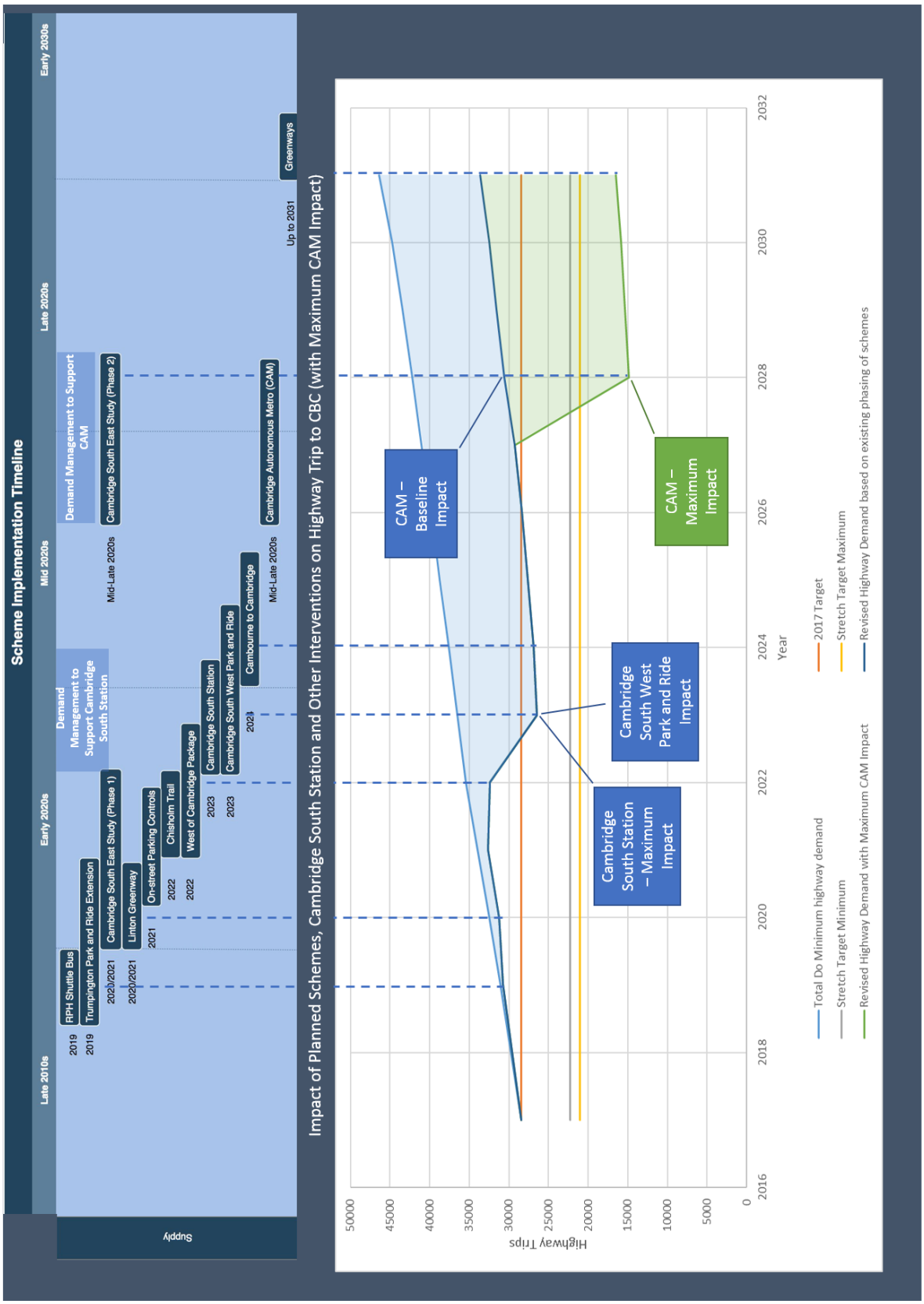
Provision	Description	Benefits
Cycle Hire	Hireable cycles are currently in operation within CBC and are widely used. The Station should have a designated location for these and similar operators' cycles. This is in addition to the cycle hire available at the Cycle Hub.	Further encouragement for mode-shift to cycling. Facilitates cycling by non-cycle owners and those who wish to vary their mode of travel.
Re-routing of Existing Bus Services	Potential bus services that could serve the Station (in all cases, subject to operational feasibility) are the following: *Potential to terminate at Cambridge South Station, requiring bus stops and a layover facility:* • Citi 2 and 114 – to create links from south-east and eastern Cambridge. These would be extended from the existing bus station to terminate at Cambridge South Station. *Potential to pass Cambridge South Station, requiring bus stops:* • Citi 1 – to provide links from south-east Cambridge, Cherry Hinton and Fulbourn, including Peterhouse Technology Park and Capital Park, although this would require significant additional mileage and increase journey times for other passengers; • 13 and 31 – to create links from Babraham and Haverhill (including the Babraham Institute and Granta Park), although this would require significant additional mileage and increase journey times for other passengers; • 16A – to create links from villages east of Cambridge, although it is currently a limited service; • Citi 7 – links from Stapleford Road, Cambridge Road, Great Shelford, Stapleford, Sawston and Saffron Walden which would provide additional connectivity, notwithstanding these locations' existing links to the rail network (including Shelford station itself); • 25 and 132 – links from Trumpington (and 132 additionally southwards to Saffron Walden) which would add a local feeder route supplementing walking, cycling and use of CGB. The 132 service would require re-routing to serve the Station; and • CGB services (including U) - to provide links from Trumpington as well as the north and north-west of the City. Bus stop facilities should take into account the existing CBC Bus Stop Standards.	Supports bus access throughout the catchment area for origin trips to the Station. Supports bus access to locations on CBC. Provides additional bus-bus interchange opportunities. Consequential impact on parking demand and highway traffic. Complements other GCP schemes.

Provision	Description	Benefits
Bus Access for Potential New Routes	There are three groups of potential new routes that could interact with the proposed Station: • **West of Cambridge package routes** – as described in Part 1. These could originate in places such as Camborne or north-west Cambridge and run on or near the M11 to Trumpington and then via the busway to CBC and potentially the City Centre. Exact service patterns have not yet been defined. • **Other near-term additional routes** identified in Part 1 are likely to approach CBC via the busway from the north or south and terminate at CBC. In this respect their requirements will be similar to those of existing route U (see 'CGB services' above) or the potential West of Cambridge Package routes. • **Cambridge South East Transport Study options** include potential new public transport access points to CBC. Each of these, if implemented, would pass Cambridge South Station and therefore require bus stops as noted above.	Supports bus access throughout the catchment area for origin trips to the Station. Supports bus access to locations on CBC. Provides additional bus-bus interchange opportunities. Consequential impact on parking demand and highway traffic. Complements other GCP schemes.
Timetabling and co-ordination	It is desirable for bus and train times to co-ordinate to reduce interchange times at the Station when they are not operating at high frequencies. This would require co-ordination between bus and train operators and should be considered at detailed design stage in the light of the timetables and route networks at the time.	Reduced journey times. Increased attractiveness of bus-rail journeys.
Shuttle Service	An orbital bus route within the CBC site, calling at the key employment sites, transport interchanges and healthcare facilities, could provide improved journey times around the site. This service could be used particularly by disabled users and other mobility-impaired users. The shuttle bus itself would desirably be emission free although low emission alternatives could be provided. It should run both peak and off-peak to provide connectivity and additional safe, accessible travel options. This service could be a development of the existing Campus shuttle, or an entirely new service. The service could potentially also be an autonomous or demand responsive system subject to technological advances, space on site and funding for implementation, operation and maintenance.	Improves mobility around the site. Complements other buses serving CBC. Encourages use of, and sustainable travel to/from, the Station.

Provision	Description	Benefits
Integrated ticketing	Integrated ticketing to allow users to use the same ticket on bus and train services would reduce booking time prior to the user's journey, reduce dwell time at bus stops and address the perception that buying and collecting tickets is time consuming. PlusBus already offers this to some extent. Further development of integrated ticking is most likely to be driven by wider policy and commercial developments.	Improved attractiveness of sustainable travel modes. Potential for reduced dwell times at bus stops.
Interchange Information	Real Time Passenger Information within and around the Station can provide a summary of information including scheduled arrivals and departures of train/bus services. This could form part of the Wayfinding intervention proposed above to increase the awareness of other modes and allow users to plan their journey.	Increased awareness the Station is there will encourage users over time. Users that are informed of approximate journey length can use wayfinding as a tool to plan their journeys.
Taxi Access and Parking	A taxi rank, pick-up / drop-off zone and parking for Blue Badge holders should be adjacent to, or only a short walk, from the Station facilities. The location of these should be evaluated through the planning process and further detailed design.	Provides scope to use rail for the major part of a journey that would otherwise be made by private car.
Car Club	One or more dedicated Car Club spaces, and corresponding vehicles, should be provided. The vehicles would desirably be electric to reduce emissions on site.	Provides scope to use rail for the major part of a journey that would otherwise be made by private car.

Appendix D

Timeline of Impact Graph



GREATER CAMBRIDGE PARTNERSHIP

Growing and sharing prosperity

Delivering our City Deal

Report to: Greater Cambridge Partnership Joint Assembly 27th February 2019

Lead Officer: Mike Davies – Cambridgeshire County Council

THE CHISHOLM TRAIL

1. Purpose

1.1. The Chisholm Trail scheme supports the Greater Cambridge Partnership's (GCP's) transport vision of implementing improved public transport routes to encourage more people to use sustainable transport modes instead of the private car. This is part of a wider public transport strategy which aims to support the feasibility of delivering proposed housing and employment growth in Greater Cambridge.

1.2. The Chisholm Trail will provide a new largely off road link across the eastern side of the city linking Cambridge Station with Cambridge North Station, and in so doing provide links to employment, education and growth sites, and link green spaces.

1.3. The report progress to date on the delivery of Phase One, as well as looking ahead to how Phase Two will be delivered to give a complete Chisholm Trail.

1.4. The Joint Assembly is asked to comment on the report.

2. Background

2.1. The Chisholm Trail was conceived by cycling campaigner Jim Chisholm in the late 1990s. The thinking behind the Trail is to provide a strategic transport corridor that is largely traffic free that could link up key destinations, including employment sites across the city. This would mean that vulnerable road users would be able to avoid heavy traffic and junctions, whilst the route itself would serve to encourage increased sustainable transport journeys and thus relieve congestion, boost public health and make for more reliable journeys.

2.2. A feasibility study was undertaken in 2009 which identified potential route options, land ownership and upcoming opportunities in new developments. In 2012 The Chisholm Trail as a strategic transport route was added to the emerging Cambridge City Local Plan. A Basic Asset Protection Agreement was signed with Network Rail, and work began to identify potential delivery options.

2.3. It was agreed at the Greater Cambridge City Deal Executive Board meeting in January 2015 that The Chisholm Trail should form part of the City Deal prioritised programme, and a budget of £8.4m was allocated. In August 2015 the Board gave approval to consult on the proposed route. In March 2016 the Executive Board approved the route of The Chisholm

Trail following a period of public consultation, and gave approval to submit a planning application.

2.4. A two phase approach has been adopted for development and delivery of the scheme. Phase One (Coldhams Lane to Cambridge North Station including a new river crossing) is almost wholly off road, and required planning consent and commons consent, whereas Phase Two (Coldhams Lane to Cambridge Station) runs on quiet streets (public highway), Network Rail (NR) land and across two new developments (Mill Road Depot and Ridgeons, Cromwell Road). The approved route and the scheme phases can be seen on the plan in **Appendix 1**.

2.5. The 2009 feasibility study recommended that a new bridge crossing of the River Cam should be considered as part of the trail, and that this in itself had standalone value. Cambridgeshire County Council was successful in its 2013 bid to become part of the Department for Transport funded Cycle City Ambition Grant (CCAG) programme. The new bridge, which has come to be known as Abbey-Chesterton Bridge, was a key part of the County Council's CCAG programme. Following public consultation, approval was given by the County Council's Economy and Environment Committee in November 2015 to proceed to a planning application. Further S106 funding was identified for the bridge, and it gained planning consent in 2017.

2.6. As well as being a key component of the strategy to increase the levels of cycling and walking in Greater Cambridge, added benefits of the project are the promotion of multi-modality (allowing easy access to rail stations and transport hubs by foot and cycle) and the opening up and linking of green spaces, which in turn gives potential scope for recreation, public art, new habitat creation and other initiatives and projects. This is a robust model: the Promenade Plantée in Paris, New York's High Line, and the recently opened 606 in Chicago have enabled alternative transport and leisure routes along railway corridors.

2.7. The Trail will also serve to link new developments thus encouraging more residents to adopt sustainable transport modes. The Chisholm Trail is very much a strategic route that links new developments and employment sites, and has direct linkages to other projects including Waterbeach Greenway.

3. Key Issues and Considerations

Phase One

3.1. The construction contract for Phase One (and Abbey-Chesterton Bridge) was let in November 2018 to Tarmac. The current work programme is 20 months duration. This phase has proved to be very complex and lengthy in terms of progressing through the planning application and planning condition discharge process reflecting the difficulties of the site. The site runs next to and under a live railway line, passes the oldest building in Cambridge, across areas of archaeological and ecological interest, and through areas that are designated as 'Flood Zone'. The route also impacts on public utilities located in Newmarket Road as well as a major strategic gas main that has to be crossed by The Trail in Ditton Meadows.

3.2. Land licence agreements have had to be secured from a range of landowners for both temporary compounds and the permanent route of The Trail. Each landowner has different requirements in reaching an agreement in terms of boundary treatments, specific routing of

The Trail, landscaping and lease/licence duration. In some cases landowner requirements have meant reworking of packages being submitted to discharge planning conditions.

3.3. Due to ecological reasons the space available at Barnwell Lakes, on the south side of Newmarket Road, is more limited than first believed. This means that it is not possible to construct the underpass as originally planned by constructing it on Barnwell Lakes land and then moving it into place using self-propelled modular transporters. The underpass has been re-designed so that it can now be constructed in less space at Barnwell Lakes, using pre cast concrete units.

3.4. To construct the underpass, various utilities need to be relocated or protected during the works. The original plan was to physically suspend the services beneath a scaffolding bridge, but based on trial holes dug, condition surveys and liaison with each of the utility companies, the age and poor condition of some of the services has meant that this is not possible. The services will now need to be permanently or temporarily diverted.

3.5. Work to deliver Phase One should be complete by summer 2020, including the new river bridge.

Phase Two

3.6. In terms of Phase Two, NR are undertaking major works to their assets north of Cambridge Station to increase stabling capacity, and to improve carriage presentation facilities (maintenance and cleaning) as part of the Thameslink programme. These improvements entail bringing back into use an arch in Mill Road bridge, and lowering the track at that location, for which a closure of Mill Road bridge is necessary for around seven weeks; scheduled for summer 2019. NR are liaising with the County Council's Traffic Manager Team to finalise the timings and arrangements.

3.7. As a result of close working over several years between The Chisholm Trail Project Team and NR, the proposals for The Trail on the east (Romsey) side can be delivered by NR as part of their works. Details are shown on the plan in **Appendix 2**. This option that gives best value and minimises the need to obtain various approvals/consents, and procure NR approved contractors. It also delivers this section of the scheme in the shortest possible timescale.

3.8. The planning application for Mill Road depot site includes The Chisholm Trail, running along its eastern edge, and provides the Hooper Street to Mill Road bridge arch link. The Trail is already in the masterplan for the Ridgeons site as part of a quiet street shared with cars, to tie in at the northern extent of the section outlined in 2.3 above.

3.9. The Project Team will continue to engage with NR with regards to securing approval to establish the Trail on the west (Petersfield) side, from Mill Road Depot to Cambridge Station; though if this proves impossible to agree and deliver the alternative route is Devonshire Road.

3.10. In terms of on-road sections, interventions/treatments will include signage, resurfacing and a re-design of the signal controlled junction at Coldhams Lane and Cromwell Road.

3.11. The plan in **Appendix 3** shows the whole project in some detail in terms of on road sections, off road sections, developer interfaces and delivery phases.

4. Finance

4.1. £8.4m was allocated to The Chisholm Trail project in 2015, and at that time the scheme was very much in a development phase. A further £869,000 was allocated in early 2018 due to the difficulties and challenges of the site, the restrictions in how the construction works could be executed, and the complexities of agreeing packages for discharging planning conditions.

4.2. Final estimates for completing the Phase 2 scheme have now been secured. The £14.3m estimate is above the current approved budget.

5. Options and Emerging Recommendations

5.1. The Executive Board will be asked to note the progress being made on Phase One, with construction works commencing, and the work to date in developing Phase Two.

5.2. The Executive Board will also be asked to approve increasing the budget in line with final estimates.

5.3. Approval will also be sought to enable part of Phase Two to be delivered by Govia Thameslink/NR's contractor as part of the Thameslink works.

6. Next Steps and Milestones

6.1. The current construction works on Phase One will continue, including the construction of the Newmarket Road underpass, path widening across Coldhams Common and the new Abbey-Chesterton Bridge linking Ditton Meadows to Chesterton. At this stage it is anticipated that the underpass will be built in the autumn, with a closure of Newmarket Road for several days required.

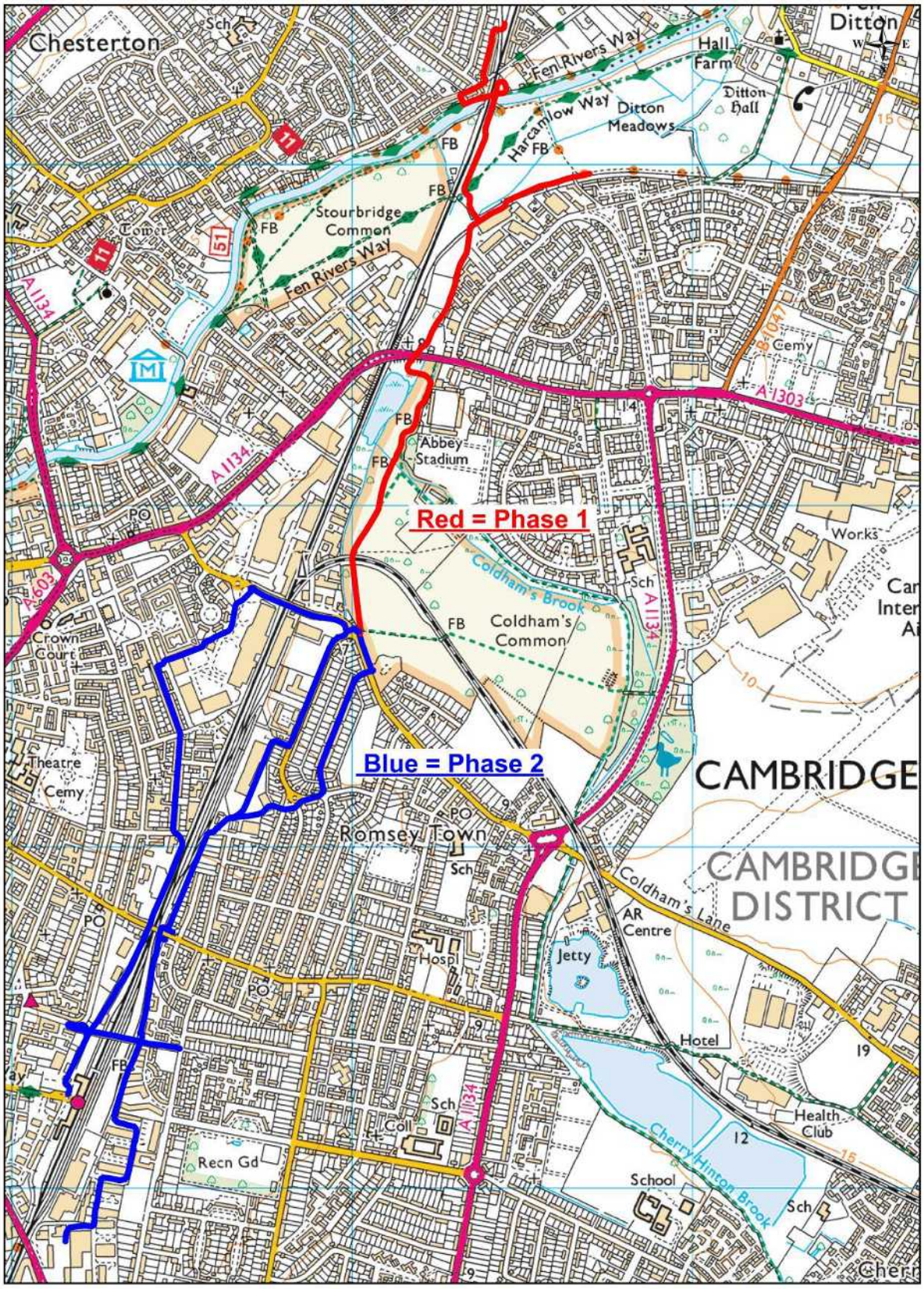
6.2. Construction works on Phase Two (Romsey Section) will commence in summer 2019 as part of the Thameslink work in Cambridge, including the closure of Mill Road Bridge. The section of The Chisholm Trail between Cavendish Road and Clifton Road should be open for public use this year, providing a good quality cycle link from Romsey to destinations such as Hills Road and Long Road Sixth Form Colleges, Addenbrooke's Hospital and the Biomedical Campus via this new link and the Hills Road segregated cycleway.

6.3. Work to commence the development of Mill Road Depot site has started, and on completion a section of The Chisholm Trail will open. Positive discussions have been ongoing to incorporate The Chisholm Trail as part of the Ridgeons development on Cromwell Road, though the design has not been finalised and planning consent has not been secured.

6.4. Design work is underway to improve the controlled crossing of Coldhams Lane, giving access from Coldhams Common into Cromwell Road and onwards to the Ridgeons development. Other on road sections of the route include Cromwell Road, York Street, Ainsworth Street and Clifton Road. Work is underway to consider how these roads, all currently subject to 20mph speed limits, could be further enhanced to ensure the very safest, attractive conditions for cyclists exist.

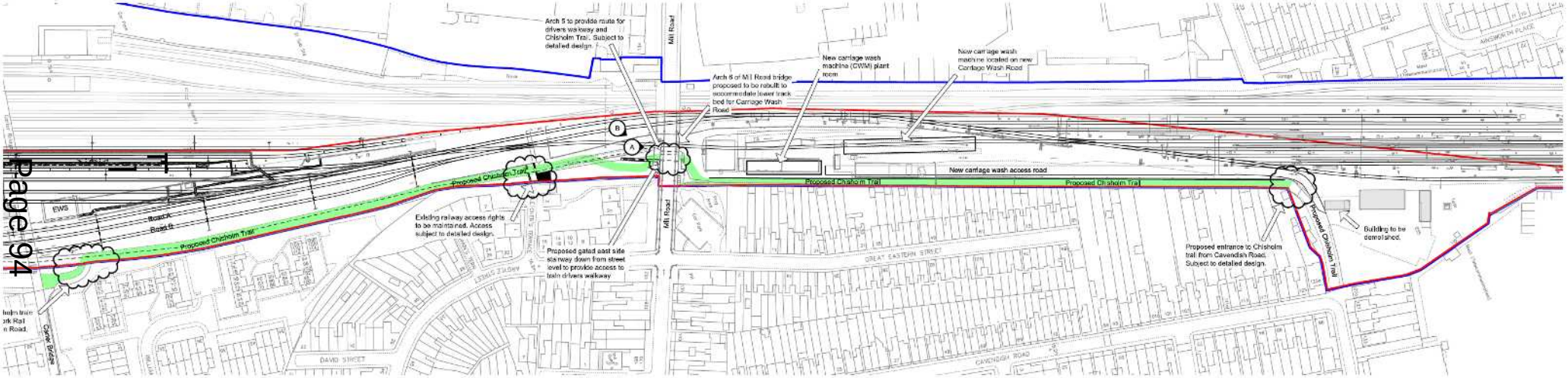
6.5. The Chisholm Trail is currently planned to be complete and open for use in 2022.

APPENDIX 1 – APPROVED ROUTE AND PHASING

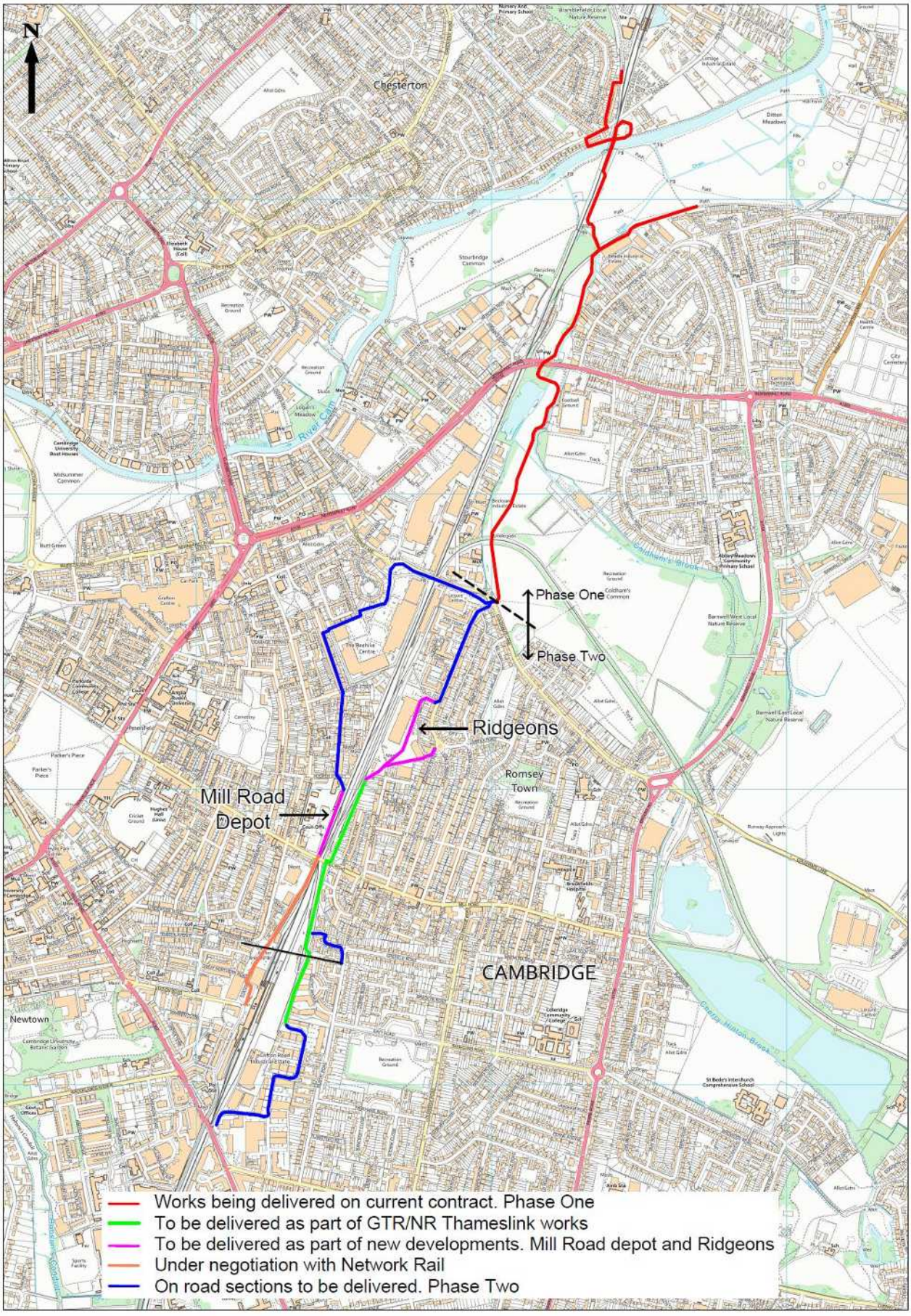


APPENDIX 2 – CHISHOLM TRAIL PHASE 2, SECTION TO BE DELIVERED BY NETWORK RAIL

Larger plan to be tabled at the meeting



APPENDIX 3 – DEVELOPER INTERFACES, ON & OFF ROAD SECTIONS AND DELIVERY PHASING



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GREATER CAMBRIDGE PARTNERSHIP

Growing and sharing prosperity

Delivering our City Deal

MILTON ROAD: BUS, CYCLING AND WALKING IMPROVEMENTS
FINAL DESIGN

Report to: Greater Cambridge Partnership Joint Assembly 27th February 2019

Lead Officer: Peter Blake - GCP Transport Director

1. Purpose

1.1. The Milton Road scheme supports the Greater Cambridge Partnership's (GCP's) transport vision of implementing improved public transport routes to encourage more people to use sustainable transport modes instead of the private car. This is part of a wider public transport strategy which aims to support the feasibility of delivering proposed housing and employment growth at Cambridge Northern Fringe, Ely, Cambridge Science Park, Northstowe and Waterbeach (collectively around 27,000 new homes and 9,800 new jobs between 2011 and 2031).

1.2. The report sets out the final design (**Appendix A**) for Milton Road that includes modifications to the previously approved design following public consultation feedback. In developing the final design, the consultants design team have worked closely with the County Council's road safety and signals teams to ensure that all aspect conform with current regulations, are considered safe, and provide a good balance in terms of functionality for all users.

1.3. The report also presents the landscaping strategy and designs for the various landscape areas along Milton Road. These have been developed following further engagement with the Local Liaison Forum (LLF) in January 2019 and in partnership with Cambridge City Council.

1.4. The Joint Assembly is asked to comment on the report.

2. Key Issues and Considerations

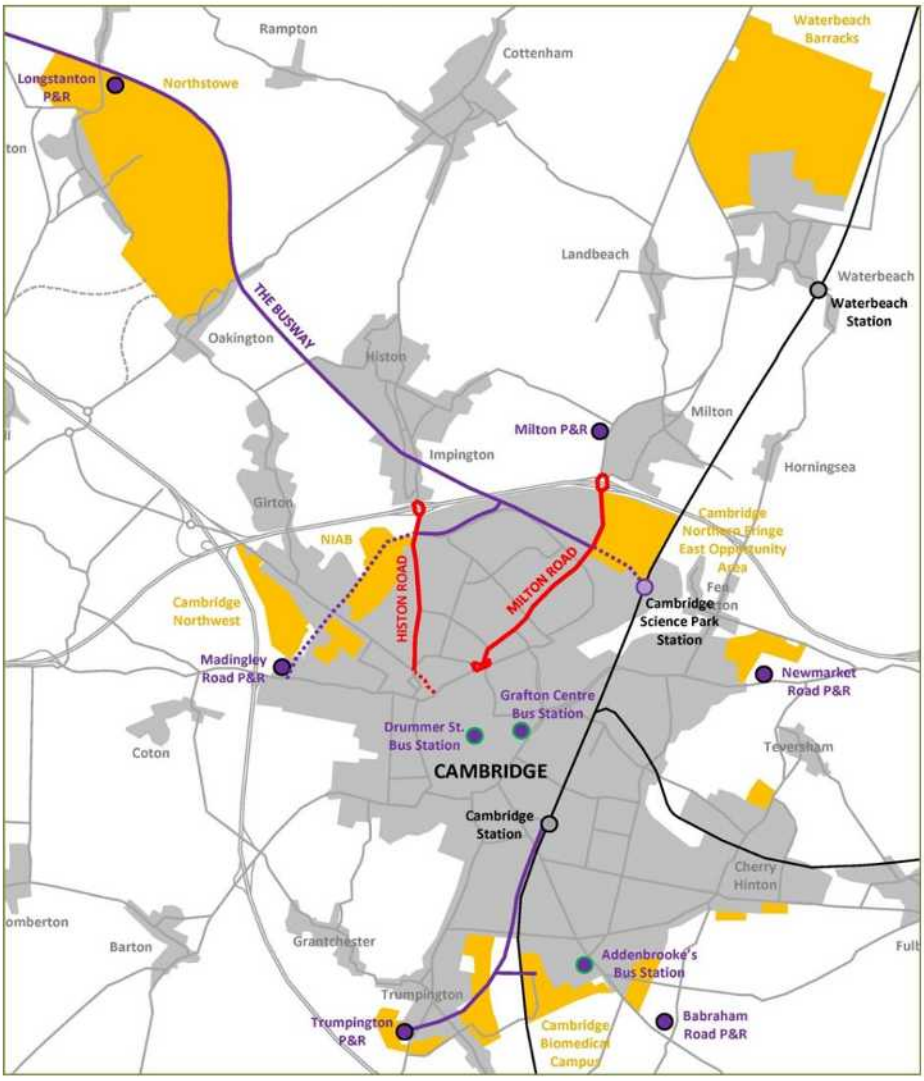
2.1. The project has the following key objectives:

a) Comprehensive priority for buses in both directions wherever practicable;
b) Safer and more convenient routes for cycling and walking, segregated where practical and possible;
c) Enhance the environment, streetscape and air quality;
d) Additional capacity for sustainable trips to employment/education sites;
e) Increased bus patronage and new services; and
f) Maintain or reduce general traffic levels.

2.2. **Figure 1** indicates the length of Milton Road under consideration and shows its setting within the wider strategic context. The Milton Road Histon Road Draft Stage 1 Report 25.09.15 sets out the strategic and planning background, and broader context for the scheme.

2.3. The strategic nature of the Milton Road scheme is recognised, particularly as the route links outwards towards the Milton Park & ride site and onwards to the Waterbeach development.

Figure 1: Milton Road in the Wider Area Context



2.4. In July 2018, the Executive Board approved the preliminary design for Milton Road for public consultation. The consultation took place in the autumn of 2018. Consultation leaflets were delivered to over 15,000 houses in north Cambridge and the village of Milton. Three formal consultation events took place that were all well attended. Almost 900 responses were received.

2.5. The consultation analysis report will be published online when complete. In summary, all aspects consulted on received more support than opposition with most aspects of the design receiving significant support. The qualitative aspects of the consultation were of significant value in fine-tuning the final proposals.

3. Options and Emerging Recommendations

3.1. Following the analysis of the consultation feedback and extensive dialogue with the County Council's Road Safety, Signals and Cycling Projects Teams, modifications have been made to the design. These modification have been presented and discussed further at an LLF workshop held on 22nd January 2019. The following paragraphs set out the key changes that have been made with reasons.

Relocation of outbound bus stop near Westbrook Place.

3.2. The previous position of the bus stop slightly obstructed a residential access and also was not ideal given the new design layout including a crossing near to Westbrook place. The bus stop has been relocated closer to Gilbert Road where there is sufficient space.

Addition of signalised crossing near Westbrook Place and subsequent changes to the design of Gilbert Road junction.

3.3. Representation made during the consultation period highlighted the significant local interest in placing a crossing near to Westbrook place to improve access for pedestrians and cyclists. The project team also felt that this option would give more space for a segregated off road solution for Pedestrians and Cyclists on the outbound approach to the Gilbert Road junction that is more consistent with the rest of the scheme.

3.4. Following extensive discussions with Road Safety, Signals and Cycling officers, and further discussion at the LLF workshop and with representatives of Camcycle, it is proposed to use a Toucan Crossing for the outbound crossing of Gilbert Road. The crossing will have a segregated approach but essentially the crossing area is legally defined as dual use, thus allowing cyclists to legally make the left turn into Gilbert Road during the Pedestrian and Cycle signal phase.

3.5. It is also proposed to slightly narrow the inbound cycle lane in the vicinity of the junction in order to slow cyclists and to provide additional space to pedestrians, especially those waiting in the crossing area.

Additional space for pedestrians and cyclists at Elizabeth Way roundabout and removal of shared use areas in favour of full segregation.

3.6. Feedback from the public consultation put forward a strong argument to reduce carriageway widths at the entry points to the Elizabeth Way roundabout in order to enable increased space and achieve full segregation of the footpath and cycleway that circumnavigates the roundabout. In the modified design, the additional space and segregation has been possible to achieve by reducing lane widths on the Milton Road outbound and Elizabeth Way approaches to the roundabout, and by reducing the Milton Road inbound approach to a single lane. Traffic modelling demonstrates that these modifications do not significantly impact the capacity of the roundabout for vehicular traffic.

Positioning of the inbound bus stop position near Arbury Road junction.

3.7. The new position takes into account the potential future requirement for a dropped kerb access into an adjacent property.

Slight modifications to the Arbury Road Junction

3.8. The same approach for pedestrian and cycle crossings as used at the Gilbert road/Milton road junction is proposed for the Arbury Road/Union Lane junction with Milton Road. In this case Toucan Crossings will be used for both the inbound and outbound crossings. The Toucan Crossings will have a segregated approach but essentially the crossing area is legally defined as dual use, thus allowing cyclists to legally make the left into Arbury Road and Union Lane during the Pedestrian and Cycle signal phase.

Addition of signalised crossing near Downhams Lane

3.9. The consultation response set out a preference for a crossing point near to Downhams Lane.

Positioning of the outbound bus stop position near Downhams Lane.

3.10. The consultation highlighted that the proposed location of the bus stop was adjacent to a building of local interest. The stop has therefore been re-positioned to a more appropriate location nearby.

Re-worked design for the area around Woodhead Drive to enhance the outbound bus lane, shorten the inbound bus lane, and provide an uncontrolled crossing.

3.11. The question was raised at consultation events as to why we had retained right-hand filter lanes for Woodhead Drive and Kendal Way. Questions were also raised as to whether the outbound bus lane approaching the Kings Hedges junction was long enough to provide any benefit. The consultants have looked at this area in more detail and have modelled the effects of removing the right hand filter lanes. They are satisfied that there is no significant change in the capacity as a result. A new arrangement is therefore proposed that removes the filter lanes, assigns addition length to the outbound bus lane and shortens the inbound bus lane. The new arrangement allows for an uncontrolled crossing point with a central island between the start points of each bus lane.

New design option for pedestrians and cyclists at Kings Hedges junction.

3.12. It is proposed to modify the design around the junction to follow the popular approach recently proposed for the Gilbert/Warwick Road junction with Histon Road. This allows for fewer conflict points between pedestrians and cyclists while maintaining full segregation.

Treatment of the outbound pavement between Ascham Road and Ramsden Square

3.13. The previous design included a shared use pavement on the outbound side of the road from Ascham Road to Ramsden Square. Strong concerns were raised during the consultation, mainly from pedestrians, highlighting the fact that given cyclists were being provided a new, completely segregated inbound lane, we should not be encouraging them to share the pavement with pedestrian for the whole length of Milton Road. Following further discussion at the LLF workshop it is proposed to shorten the length of shared use pavement to include only the section between Ascham Road and Elizabeth Way Roundabout. It is felt that this compromise will still allow for the flow of school children on bicycles, many of whom access Milton Road via Highworth Avenue. However this arrangement will promote the proper usage of the inbound cycle lane for the majority of cyclists, and thus a better environment for pedestrians on the outbound side of Milton Road.

Other Key Design Considerations

3.14. The Design Team has incorporated facilities to allow cyclists to legally access signalised crossing points from nearby side roads by including short two way sections.

3.15. The design includes mini zebra crossings on the cycleway at all locations where pedestrians need to formally cross the cycle lane to access signalised crossings.

Landscape and Environment

3.16. The scheme will result in existing trees being replaced with a fully considered and developed tree planting design along the length of Milton Road, taking into account relevant design

guidance, in particular that developed by the Tree Design Advisory Group (TDAG) http://www.tdag.org.uk/about-tdag.html. The tree planting strategy is set out in **Appendix B**.

3.17. Designs for the main landscaping opportunity areas were considered at the recent LLF workshop. The designs are set out in **Appendix B** alongside the landscape strategy for Milton Road.

Cost Benefit.

3.18. The consultants WSP have prepared a cost benefit analysis of the scheme which has indicated a benefit to cost ratio (BCR) in the range of 2.3 to 4.2

3.19. The current estimated cost for the project remains on track to be delivered within its overall budget of £23M as reported to the July Executive Board meeting.

4. Next Steps and Milestones

4.1. Subject to the decision made by the Executive Board, officers plan to follow the broad programme set out below:

April 2019	Commence Detailed Design
August 2019	Appoint Contractor (packaged with Histon Road)
January 2020	Detailed Design Complete
March 2020	Executive Board decision to commence construction
April 2020	Commence construction
Winter 2021	Scheme Complete – this is the subject of further timetabling work

List of Appendices

Appendix A	Final Technical Design Layout and Key Features
Appendix B	Landscaping Strategy

Background Papers

Title	Link
Milton Road Histon Road Draft Stage 1 Report 25.09.15	https://citydeal-live.storage.googleapis.com/upload/www.greatercambridge.org.uk/transport/transport-projects/Milton_Road_Histon_Road_Draft_Stage_1_Report_25.09.15.pdf
Executive Board agenda and minutes November 2015	http://scambs.moderngov.co.uk/ieListDocuments.aspx?CId=1074&MId=6537&Ver=4
Executive Board agenda and minutes June 2016	http://scambs.moderngov.co.uk/ieListDocuments.aspx?CId=1074&MId=6632&Ver=4
Executive Board agenda and minutes July 2017	http://scambs.moderngov.co.uk/ieListDocuments.aspx?CId=1074&MId=6856&Ver=4
Executive Board agenda and minutes July 2018	http://scambs.moderngov.co.uk/ieListDocuments.aspx?CId=1074&MId=6856&Ver=4
2018 Consultation Analysis Report	(To follow)

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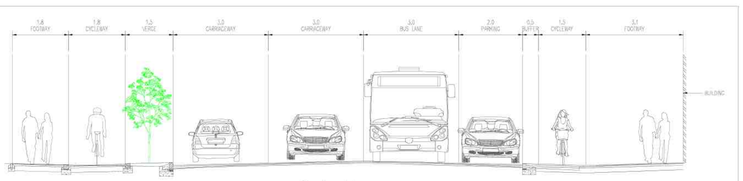
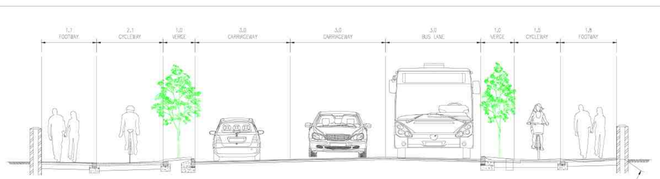
2. FULL TOPOGRAPHIC SURVEY INCLUDING TREE LOCATIONS TO BE CONFIRMED AT DETAILED DESIGN STAGE
3. TREE REMOVAL / REPLACEMENT WILL BE SUBJECT TO GROUNDWORKS INVESTIGATIONS AND/OR ARBORICULTURE WATCHING BRIEF AT DETAILED DESIGN STAGE

LEGEND:
- CARRIAGEWAY
- LANDSCAPING
- OFF ROAD CYCLE PATH
- FOOTWAY
- BLOCK PAVING (RED)
- BLOCK PAVING
- HARDSTANDING
- SHARED CYCLE WAY
- RAISED CYCLE PATH
- PROPERTY ACCESS
- BUS LANE
- BUS STOP CAGE
- BUS SHELTER
- PROPOSED RAMP
- HIGHWAY BOUNDARY/WORK EXTENTS
- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- PROPOSED TREE
- 2.4m x 43.0m VISIBILITY SPLAY



Section A-A



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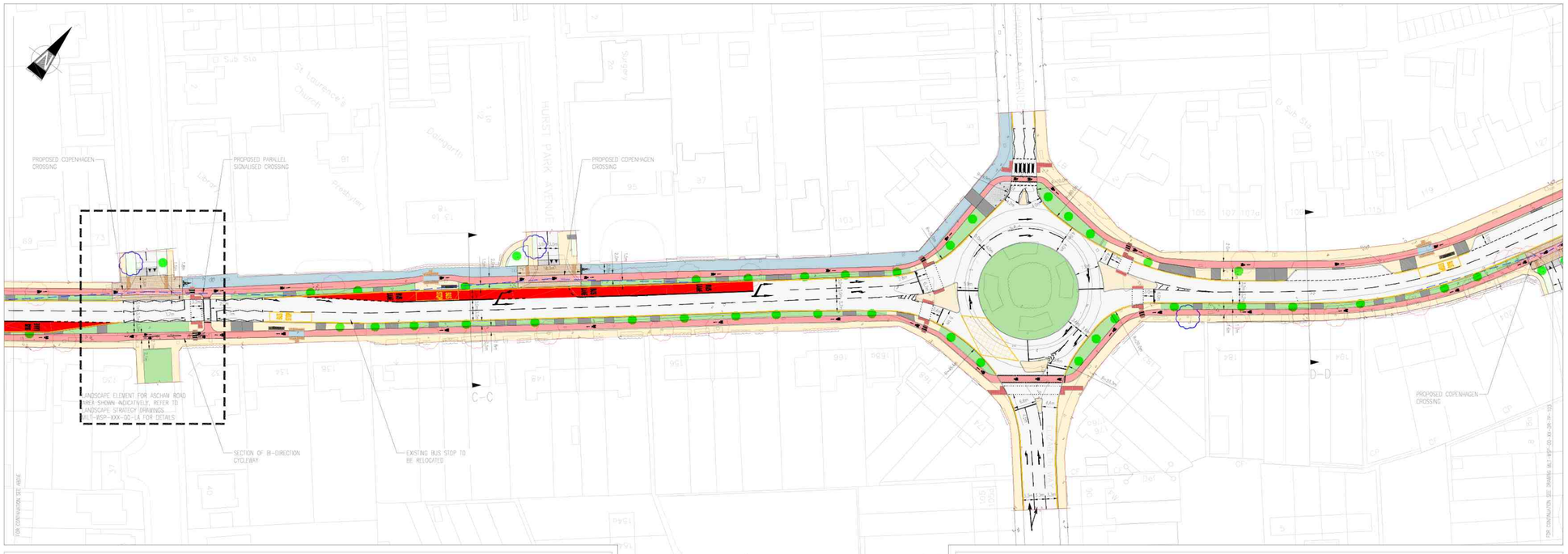

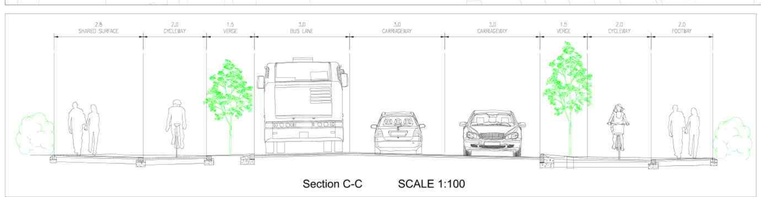

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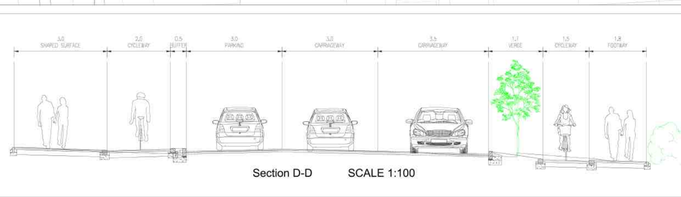

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P02	18/05/2018	MSTO	CAD AMENDMENTS	AKM	NP
P01	09/05/2018	GRJ	FIRST ISSUE	AKM	NP

DRAWING STATUS: S2 - FOR INFORMATION

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wsp.com

CLIENT: GREATER CAMBRIDGE PARTNERSHIP

ARCHITECT:

PROJECT: MILTON ROAD IMPROVEMENT SCHEME

TITLE: GENERAL ARRANGEMENT SHEET 1 OF 3

SCALE @ A0:	CHECKED:	APPROVED:
1:500	AKM	NP
PROJECT No: 70012012	DESIGNED: GRJ / DRAWN: GRJ	DATE: February 19

DRAWING No: MILT-WSP-00-XX-DR-TP-102 REV: P04

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- BLOCK PAVING (RED)
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- HIGHWAY BOUNDARY/WORK EXTENTS
- EXISTING TREE TO BE RETAINED
- EXISTING TREE TO BE REMOVED
- PROPOSED TREE
- 2.4m x 43.0m VISIBILITY SPLAY

EXISTING BUS STOP RELOCATED SOUTH AWAY FROM THE JUNCTION

PROPOSED FLOATING BUS STOP

PROPOSED FLOATING BUS STOP

PROPOSED COPENHAGEN CROSSING

PROPOSED FLOATING BUS STOP

FOR CONTINUATION SEE DRAWING MILT-WSP-XX-XX-DR-TP-102

FOR CONTINUATION SEE DRAWING MILT-WSP-XX-XX-DR-TP-104

PROPOSED COPENHAGEN CROSSING

SECTION OF 3B-DIRECTION CYCLEWAY

PROPOSED COPENHAGEN CROSSING

PROPOSED FLOATING BUS STOP

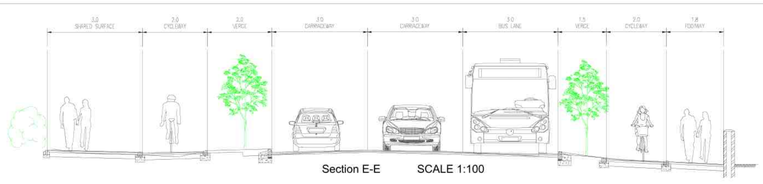
PROPOSED UNCONTROLLED CROSSING WITH 2.0m ISLAND

PROPOSED FLOATING BUS STOP

PROPOSED COPENHAGEN CROSSING

SECTION OF 3B-DIRECTION CYCLEWAY

E-E



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P01	09/05/2018	GRJ	FIRST ISSUE	AKM	NP
REV.	DATE	BY	DESCRIPTION	CHK	APP.

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ARCHITECT:

PROJECT:
MILTON ROAD IMPROVEMENT SCHEME

TITLE:
GENERAL ARRANGEMENT
SHEET 2 OF 3

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PROJECT No: 70012012	DESIGNED: GRJ	DRAWN: GRJ	DATE: February 19
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FOR CONTINUATION SEE DRAWING MILT-WSP-XX-XX-DR-TP-103

FOR CONTINUATION SEE BELOW

CROSSING FEATURES TO BE DEFINED AT DETAILED DESIGN

F-F

LEGEND:

- CARRIAGEWAY
- LANDSCAPING
- OFF ROAD CYCLE PATH
- FOOTWAY
- BLOCK PAVING (RED)
- BLOCK PAVING
- HARDSTANDING
- SHARED CYCLE WAY
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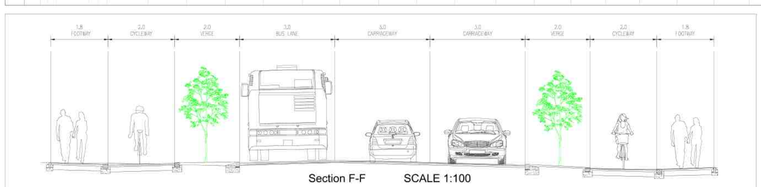

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FOR CONTINUATION SEE ABOVE

DROP KERB ARRANGEMENTS TO BE DETERMINED AT DETAILED DESIGN STAGE

PROPOSED PARALLEL SIGNALISED CROSSING

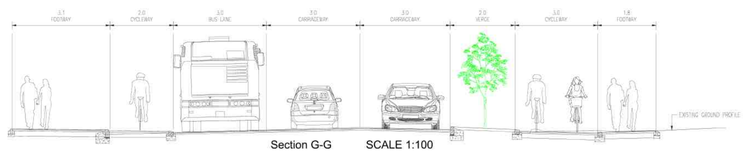
EXISTING TOUCAN CROSSING RELOCATED NORTH

PROPOSED FLOATING BUS STOP

SECTION OF BI-DIRECTION CYCLEWAY

MILTON ROAD SCHEME TIE WITH GREEN END ROAD SCHEME

G-G



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ARCHITECT:

PROJECT:
MILTON ROAD IMPROVEMENT SCHEME

TITLE:
GENERAL ARRANGEMENT
SHEET 3 OF 3

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Milton Road

Preliminary Landscape Design - Figures

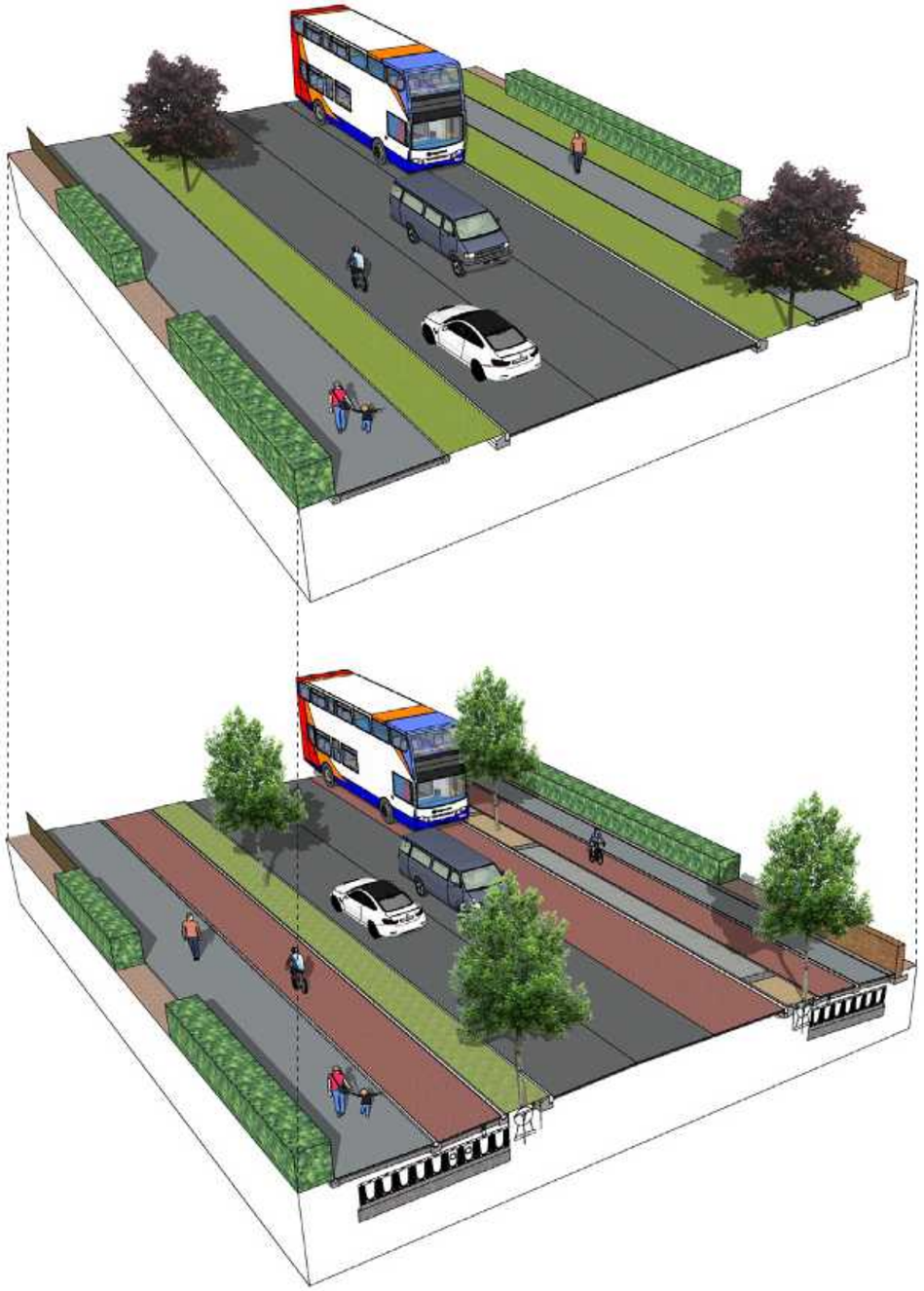
Milton Road
Key Plan

Figure 1

Overall Tree Strategy

Figure 2

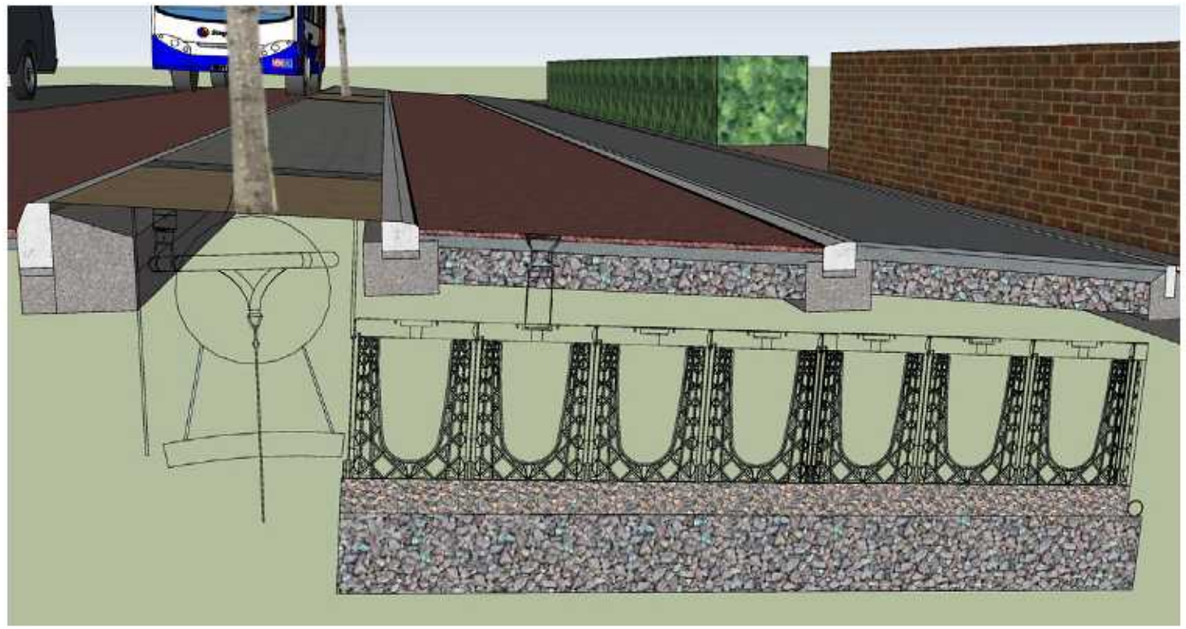
Indicative Existing Section



Indicative Proposed Section

Indicative arrangement of tree in grass verge with Rootspace System

Indicative arrangement of tree in hard verge with Rootspace System



Overall Tree Strategy

Figure 3

Typical Street Tree Planting in Hard & Soft Surfaces

Elizabeth Way Roundabout

Figure 4

Concept Plan:

KEY:

1. Proposed trees (Birch) within mown grass verge
2. Proposed trees (Ornamental Pear) within mown grass verge
3. Proposed annual bedding plants
4. Retained / Proposed mown grass
5. Retained / restructured trees/shrubs
6. Proposed block paving

N

NTS

Kings Hedges Cross Roads

Figure 5

Kings Hedges Cross Roads

Figure 6

Concept Plan:

KEY:

1. Proposed trees within rain garden
2. Proposed trees within mown grass verge
3. Proposed block paving

N

NTS

Woodhead Drive

Figure 7

Precedent Images:

Proposed Section A-AA

Sketch Visualisation

Woodhead Drive

Figure 8

Concept Plan:

KEY:

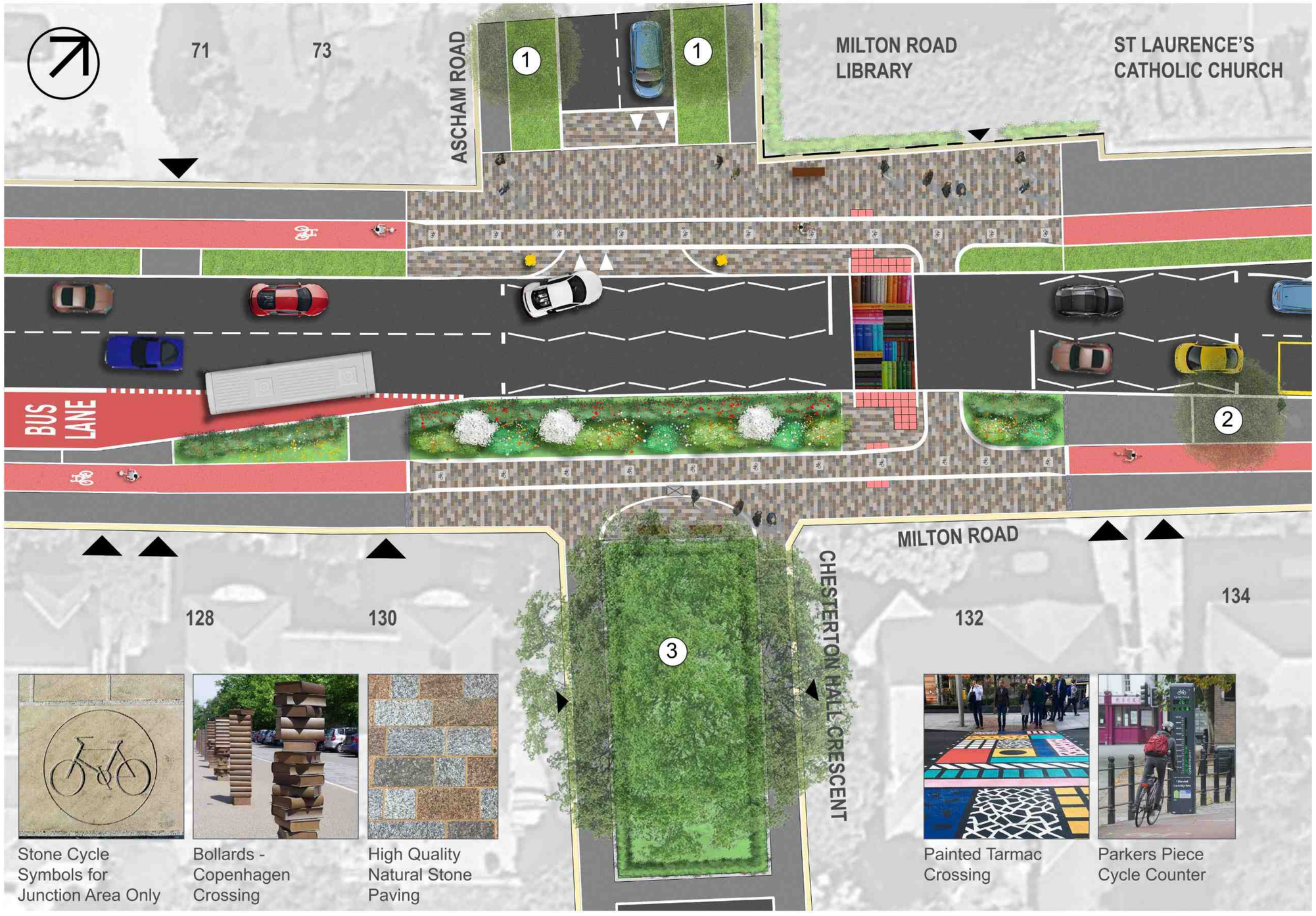
1. Copenhagen crossing
2. Restructured woodland
3. Rain garden
4. Mown grass swale
5. Planted swale
6. Native hedgerow

N

NTS

The Junction of Ascham Road

Scholars Crossing



TREES

1. Pyrus calleryana 'Chanticleer'
2. Betula albosinensis 'Fascination'
3. Styphnolobium japonicum (existing)

LEGEND

- Granite Stone Paving
- Allocated Cycle Lane on Junction
- Painted Tarmac Crossing with Education Theme
- Feature Bollard
- Seating
- Bespoke Monolith / Sculpture
- Tactile Paving
- Mixed Planting (<2m height)
- Grass Verge

0 1 2 3 4 5 10 m

Figure 9

Greater Cambridge Partnership

MILTON ROAD

Preliminary Streetscape Design

070219 AJC
FEBRUARY 2019

PUBLIC

Greater Cambridge Partnership

MILTON ROAD

Preliminary Streetscape Design

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INTRODUCTION

This preliminary landscape design for Milton Road has been developed collaboratively with officers from the Cambridge City Council Streets and Open Spaces team, and draws upon:

- Site familiarisation visits and photography undertaken in November and December 2018;
- Relevant precedent studies of streetscape in Cambridge and the Southeast of England; and
- Engagement with the Milton Road Local Liaison Forum (MRLLF) including a workshop on the 22nd January 2019.

The landscape designs respond positively to the transport improvements and will help to bring cohesion and local distinctiveness to the overall scheme using palettes of hard and soft landscape materials that have been carefully selected.

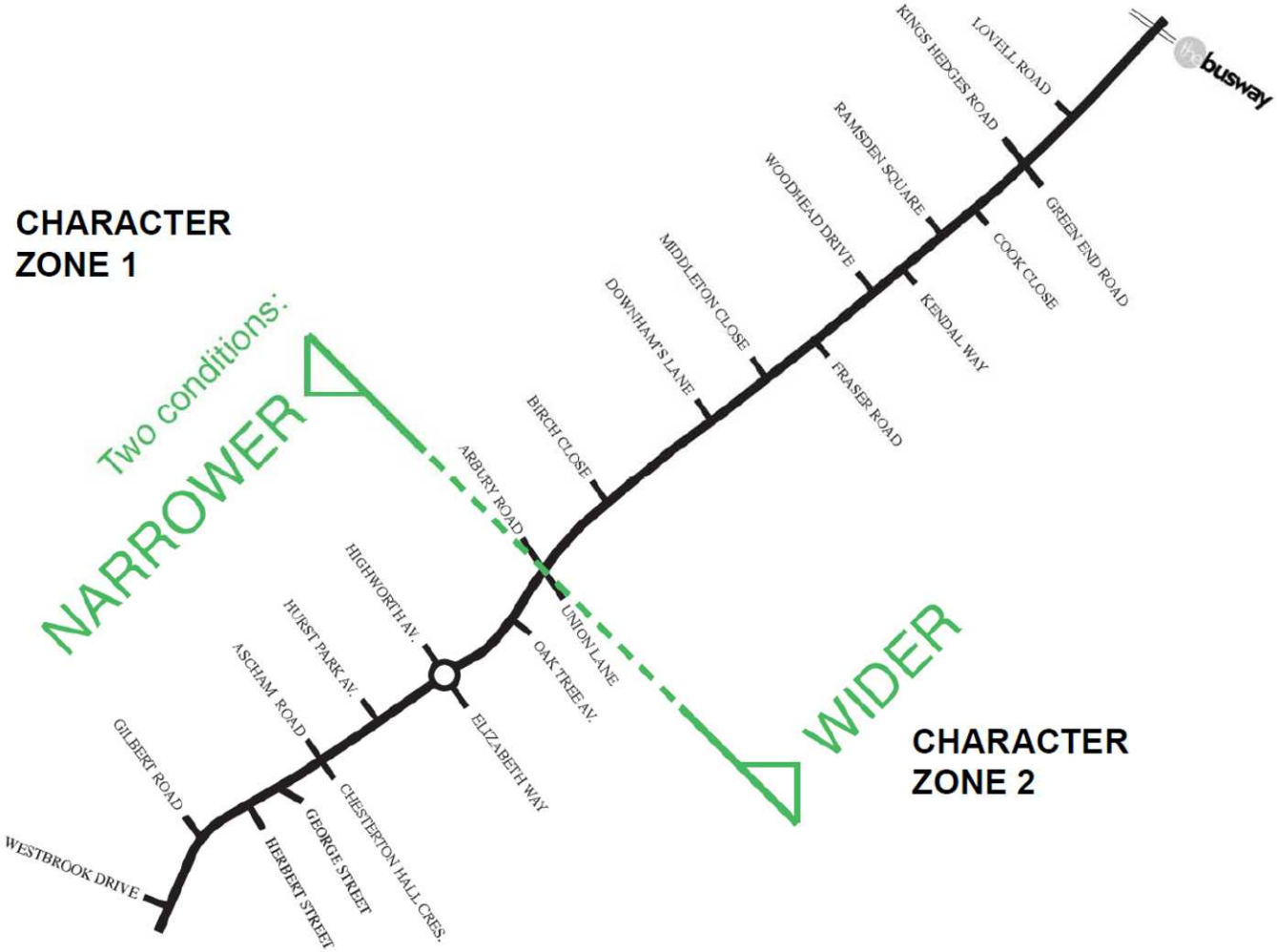
The major interventions identified at larger nodal points are prominent streetscape proposals that will affect a significant number of users. Minor interventions at smaller junctions will noticeably improve the street scene.

STREETSCAPE AND TREE PLANTING GENERALLY

An avenue of trees planted along both sides of Milton Road will become a defining characteristic of this part of Cambridge. Street trees will provide visual and physical separation between the proposed cycle/footway and the carriageway.

Milton Road has been divided into the following character areas based on suitability for different sizes and species of trees:

- Zone 1 = narrow section closer to the city centre
- Zone 2 = wide section towards the suburbs



Near the City Centre, the pallete of street tree species to be included are generally medium sized as follows:

Latin Name	Common Name	Estimated Height, Width (m)	Key Characteristics
Alnus incana	Grey Alder	15, 8	Broadly pyramidal form; catkins provide winter interest. Thrives in challenging sites.
Betula ermanii	Erman's Birch	12, 8	Peeling cream bark on the trunk, papery brown bar k on branches. Yellow autumn colour.
Betula albosinensis 'Fascination'	Chinese Red Birch	12, 8	Pyramidal habit with stiffly ascending branches. Yellow autumn colour. Peeling, deep orange bark turns a pale pink-white and in spring. Catkins up to 10cm long also appear in spring.
Betula utilis var. jacquemontii	West Himalayan Birch	12, 6	Brilliant white bark on the trunk and larger branches. Yellow autumn colour. Yellow-brown catkins to 12cm long open in early spring.
Prunus x Schmittii	Ornamental Hybrid Cherry	10, 4	Chinese hybrid between Prunus avium (wild cherry) and Prunus canescens; dark mahogany brown bark; conical form; pale pink flowers in spring.
Pyrus calleryana 'Chanticleer'	Ornamental non-fruiting pear	12, 6	Columnar pyramidal and oval when mature; useful for screening as leaves persist very early and late; orangey/red autumn colour. White flowers in spring.

The pallete of tree species to be planted within the suburban area are slightly larger, as follows:

Latin Name	Common Name	Height, Width	Key Characteristics
Liriodendron tulipifera	Tulip Tree	12, 8	Deciduous tree with distinctively shaped leaves turning butter-yellow in autumn; Spreading / branched form; flowers 4cm in length, tulip-shaped, yellowish-green, marked with orange within.
Tilia americana 'American Sentry'	Sentry Linden	15, 8	Pyramidal form; large leaves turn to yellow in the autumn before falling in November.
Tilia cordata 'Winter Orange'	Small Leaved Lime	12, 8	Deciduous tree that has red buds and orange winter shoots. Leaf colour in autumn is butter-yellow. Small, fragrant creamy-white flowers are borne in spreading clusters in summer.
Tilia tomentosa	Silver Lime	20, 8	Broad conical to rounded form, half-open crown; Light grey smooth bark, later with shallow furrows; underside of heart-shaped serrated leaf is snow-white.

TREE SPACING

The design will provide approximately 200 new trees, with 127 existing trees to be removed.

Most of the existing trees to be removed are of a small-to-medium size, whereas the new trees are medium-to-large.

The objective for tree planting density is to plant at 20 m intervals on average

There may be a requirement for smaller species and/or wider spacings to maximise visibility and the road safety audit, in combination with the detailed design, may identify certain trees which will be affected in this regard.

TREES IN SOFT AREAS

Verges adjacent to the carriageway that are 1.5 m wide or greater will be seeded and most new trees will be planted in areas of soft landscape. This will promote tree establishment and ease of maintenance. Unlike the impermeable areas which make up most of the engineering design, the soft verges will:

- intercept and slow flows that would otherwise go directly into highway drainage systems;
- improve water quality by filtering;
- irrigate tree planting areas; and
- permit gaseous exchange for tree health.

TREES IN HARD AREAS

In locations where the verge is narrower than 1.5 m there will be a paved surface using warm or neutral tones to tie in with local building materials and the landscape proposals for Ascham Road junction.

Approximately 30 trees will be planted in hard paved verges.

A permeable paving material will be provided within a 1m radius of each tree.

A structural soil system will be incorporated into the highways design.

The design for the tree rooting area will be developed collaboratively with technical specialists and product manufacturers.

Careful consideration will be given to the use of non-standard highways products such as soil cells and permeable paving and the implications on underground services and statutory undertakers' operations.

Streetscape and Tree Planting Generally - Public Engagement Outcome:

- ***Preferred tree species SW section:*** *Alnus incana / Betula ermanii / Betula albosinensis 'Fascination' / Betula utilis var. jacquemontii / Prunus x Schmittii / Pyrus calleryana 'Chanticleer'.*
- ***Preferred tree species NE section:*** *Liriodendron tulipifera / Tilia americana 'American Sentry' / Tilia cordata 'Winter Orange' / Tilia tomentosa.*
- *Preference for warm colour scheme.*

THE LOCAL CENTRE NEAR ARBURY ROAD

The design team are currently engaging with the relevant stakeholders to produce streetscape and transport enhancements in the private domain around the local centre.

It is anticipated that any agreed design changes will be a 'win-win' scenario, as the local centre is currently underperforming in streetscape terms and would benefit from similar interventions to those proposed on Milton Road.

Given that the two areas will read as one, it would be ideal if the private domain and the public realm scheme were designed and implemented together so that the movement strategy works across both areas and there are coordinated materials for the hard and soft landscaping.

Local Centre Public Engagement Outcome:

- *Parade / organise parking / soften landscape / continuity / seating / raised beds / structural planting / cycle racks.*
- ***Preferred tree species:*** *Magnolia / Sweet Gum.*

ASCHAM ROAD

The landscape design reflects the theme of knowledge and learning in the adjacent land uses (school and library), literary/scholarly road names (Milton, Ascham) and the existing "Scholar" tree focal point. High quality natural stone paving is proposed to unify the junction and contribute to civic pride. The public realm improvements will slow down vehicular movement and create an enhanced pedestrian environment. Inclusive design measures include dedicated space for wheelchair users.

The intersection of knowledge and learning will be made explicit using a unique painted pattern at the pedestrian crossing. The design of this is shown indicatively as a collection of book spines but it is hoped that local users (school, library, residents) would be involved in future designs for the crossing so that the space is regularly refreshed and reinvigorated. Bespoke book themed bollards are proposed at the Copenhagen crossing.

The inclusive seating area beneath the scholar tree will offer shade. On the sunny side of the street additional seating includes chairs that can be moved and stored in the library overnight. Street furniture such as the 'Vestre Share' invite people to leave things that can be picked up by others and have a new life/use. Users will be encouraged to use the area both actively and passively with the potential for chance encounters as well as planned meet-ups. Reading will be encouraged.

A bespoke monolith (like the one on Parkers Piece marking the Tour de France stage start) will be provided as a prominent visual cue for pedestrians and cyclists. Consideration will be given to combining the upstanding element with wayfinding, Wi-Fi, air quality monitoring and/or an engaging piece of art that is themed appropriately.

The philosophy for the planted areas is to provide a structured mix of easily maintainable groundcover, shrubs, grasses, herbaceous and feature plants such as Cornus kousa (which is included in the proposal for the new library boundary treatment). The mixed planting will be 'backclothed' by a strip of tough shrubs including evergreens adjacent to the carriageway. The planting will not obstruct views of the scholar tree.

Two ornamental pears will be planted on Ascham Road to provide symmetry and frame views of the scholar tree. A Betula ermanii protected with a metal tree guard will be planted by the bus stop. Subject to soil testing, the detracting shrub planting beneath the scholar tree will be replaced by a more formal arrangement of shade tolerant species and potentially some bulbs to provide much needed colour. Up-lighting of the tree is also proposed to highlight this feature at night time.

At the next (detailed) stage, the designers will further consider aspects such as precise positions and types of covers, kerbs, edgings and finishes, and the crucial interface with private thresholds – this will ensure the appearance of a coordinated scheme on the ground.

Ascham Road Public Engagement Outcome:

- *'Book' theme / seating / speakers corner / book bollards / pop-up events.*
- ***Preferred tree species:*** *Existing Limes / Avenue planting on the opposite side of the Church / Magnolia Galaxy by the library / Flowering species / Tulip trees / Lime trees / Hornbeam.*
- *Preference for segregated cycle lane.*

ELIZABETH WAY ROUNDABOUT

The design for this area requires minimum intervention and retains the existing character and layout including predominantly mown grass with four annual bedding planting beds, as well as an existing shrub mix in the centre. This is because the current landscape has good amenity and perceived biodiversity value.

The planting beds will be relocated and realigned. The group of shrubs and small trees within the centre of the existing roundabout will be restructured (with input from the arborculturist and ecologist). This is to ensure that the outer edges appear less like a hedge whilst maximising ecological and amenity value of the mature vegetation.

There are also four new roadside verges proposed here with an area of 240m² in total. These verges are to be mown grass, with ten new street trees planted in them: 4 no. Ornamental pear on the west side and 6 no. Birch on the east side.

Elizabeth Way Roundabout Public Engagement Outcome:

- *Majority preference for options 1 (do minimum) & 2 (do maximum).*
- *Suggested combination of these two options.*

KINGS HEDGES CROSS ROADS

The existing vegetation in this area is of low amenity value; the fastigiate Beech trees are underperforming, and the shrubs planted within the verges are predominantly covered in ivy.

The new highway design for this area provides increased area for planting which will enhance this gateway location. Ten large trees are proposed within the roadside verges, understorey planting will be provided. A rain garden is proposed outside the Co-op.

Street furniture comprises benches, public art, bicycle parking, and a sign which reads, 'Welcome to Cambridge'. The colour palette for hard landscape materials and street furniture will consist of warm or neutral tones.

Kings Hedges Cross Roads Public Engagement Outcome:

- *Welcoming gateway / community hub / play / rest / food / public art / green space & meadow planting / cycling heritage / traffic calming / crossings / tree(s) in middle of road / contrasting paving / 'Welcome to Cambridge' sign.*
- ***Preferred tree species:** Tulip / Magnolia / Ornamental Pear.*
- *Majority preference for large trees.*
- *Preference for Tulip Tree.*
- Suggested same species on all 4 corners.

WOODHEAD DRIVE

The principal landscape design objective for this area is to enhance its amenity and ecological value. A woodland character is proposed.

The design includes two sustainable drainage features including rain gardens on each corner of the junction and planted swales which extend along either side of the carriageway of Woodhead Drive. There is a raised table Copenhagen Crossing with block paved surfaces.

The existing woodland north east of the junction is to be restructured for increased visual permeability and surveillance, as well as species diversity. Access to this area is discouraged to maintain its function as an ecological area. A dense deterrent native hedgerow will be planted along the boundary of the adjacent property to the north east.

Planting within the rain gardens and the swale closest to the woodland will evoke a naturalistic woodland theme, and will consist of a mix of herbaceous perennials, bulbs, grasses, shrubs and trees. All planting has been designed to consider low maintenance.

The swale nearer the building is to have a more manicured appearance to better correspond with the existing character of the architecture and existing shrub planting in front of the building. Hence it will comprise of mown grass and street trees.

Both swales also feature subtle mounds and depressions for added visual interest and to suggest a more naturalistic riparian atmosphere.

There will be several benches overlooking the planting, and information boards describing the Site and its objectives.

Woodhead Drive Public Engagement Outcome:

- *Equal preference for medium and small trees.*
- *Suggested hedgerow.*
- *Suggested issue of surveillance.*
- *Species suggestions: Sorbus, Hornbeam, Cherry.*
- *Suggested symmetry.*

MINOR INTERVENTION AREAS

BIRCH CLOSE

The landscape proposal for this area is to retain the existing situation where possible and focus on supporting the 2 category B trees that are currently to be retained. The grassed areas are in reasonable condition and major changes to these areas may impact the roots of the existing trees and hedges. Additional street furniture will not be necessary as the space is not a focal area.

There is opportunity to plant more trees along the grass verge adjacent to the road to replace the trees that have been removed.

FRASER ROAD

The existing grass verges are to be re-seeded with general flowering lawn mix grass seed where necessary. Additionally, a mixture of bulbs such as Snowdrops, Crocus, Daffodils, & Tulips will be planted in drifts along them.

HURST PARK AVENUE

The design for this area involves seeding the verge on the Northern side with a sun-loving wildflower meadow mix such as Emorsgate EM3. Also, block paving of a similar colour to the proposed raised table is to be used within the triangular space. A cast-iron and timber bench with back and arm rests for comfort and inclusive purposes is also included. A medium-to-large-sized tree planted within hard surface of the triangular space will be provided.

KENDAL WAY

The main objectives for this space are to retain the existing Cherry tree as it is in good condition, and to replant the area beneath and on the opposite corner of the junction with an ecological, low-maintenance and scented plant community consisting of different layers, textures and warm tones. The types of plants in the groundcover layer will include a semi-evergreen clump/mat-forming species and grasses. The layer above will consist of slightly taller (max. 1m high) seasonal theme combination of herbaceous perennials and bulbs. Additionally, a timber knee rail will be re-incorporated around the perimeter to deter people from walking over the planting.

MITCHAMS CORNER

The landscape proposal for this area provides additional parking and two new street trees.

Mitchams Corner Public Engagement Outcome:

- *Strong preference for trees.*
- *Suggestion for a tree at each end.*

CONCLUSION

The proposed interventions set out above have been developed in conjunction with relevant parties. The primary objective to provide an avenue of street trees and sustainable environmental enhancement via streetscape design has been met. The long-term vision is for the proposed trees to thrive and provide a legacy. This will be achieved through implementation of the latest advances in arboricultural knowledge and techniques when considering ground preparation, planting, maintenance and management of trees.

The streetscape designs will have the following beneficial effects:

- A richer, more visually appealing and distinctive public realm;
- Greater opportunities for passive and active recreation to promote human health and wellbeing;
- Increased biodiversity; and

Wide-ranging environmental and socio-economic impacts associated with increased tree canopy cover including reduced storm water runoff; improved local air, soil and water quality; reduced atmospheric carbon dioxide; and increased property values.

NEXT STEPS

The landscape designs will be reviewed in terms of road safety, in addition to the scheme as a whole. The final design will optimise positions of trees relative to residential and commercial properties, junctions and visibility splays.

The multidisciplinary design team will collaborate on the micro-siting of trees. This will include clash detection for trees, foundations, drainage, services, and lighting columns.

Soil volumes will be calculated for each tree species and a suitable soil specified accordingly. The final tree planting details will be bespoke solutions at individual locations to ensure the proposals are as sustainable and coordinated as possible. Construction method statements for tree planting will be provided in anticipation of the various underground conditions likely to be encountered on site.

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GREATER CAMBRIDGE PARTNERSHIP

Growing and sharing prosperity

Delivering our City Deal

Report To: Greater Cambridge Partnership Joint Assembly 27 February 2019

Lead Officer: Peter Blake – Greater Cambridge Partnership

RURAL TRAVEL HUBS

1. Purpose

1.1. Rural Travel Hubs (RTHs) are small flexible transport interchanges at key rural locations that allow more people to access sustainable transport networks. They aim to reduce the level of private car usage between Cambridge and the surrounding villages by providing and enhancing links to sustainable transport options, and by enabling connections between neighbouring villages and towns.

1.2. RTHs support the Greater Cambridge Partnerships (GCP) vision of creating better, greener transport networks, connecting people to homes, jobs and study, and supporting economic growth.

1.3. This report updates Joint Assembly members on progress and emerging issues, and seeks members' views on the emerging recommendations to the Executive Board.

2. Key Issues and Considerations

2.1. In spring 2018 a feasibility study was published, with recommendations for pilot RTHs in Oakington, Sawston and Whittlesford. The Executive Board agreed to progress proposals for Oakington and Sawston, with Whittlesford Parkway Station to be the subject of a transport masterplanning exercise to understand all local transport issues. Initial engagement took place with the public and stakeholders in Oakington, Sawston and surrounding villages in summer 2018 to gather feedback on potential pilot RTHs for these communities.

2.2. The Oakington and Sawston pilot RTHs interface with other GCP projects, with the Oakington site linking to the St Ives Greenway and the Sawston site (depending on preferred option) linking to the Sawston Greenway and Cambridge South East Transport Scheme.

Oakington Rural Travel Hub

2.3. Detailed proposals for a pilot Rural Travel Hub (RTH) at Oakington have recently been the subject of local public consultation. This consultation presented two options which emerged from earlier stakeholder engagement: one with 38 general parking spaces (option 1) and one without general parking spaces (option 2). Both options included three disabled bays as well as cycle lockers, a bus shelter with Real Time Passenger Information and a bus turnaround area. Early analysis shows that 81% of respondents supported a RTH, and there was a strong preference for option 1 (73% support compared to 42% for option 2[1]).

[1] Respondents were asked to indicate their support for each option independently, rather than to choose one or the other.

2.4. The full consultation report can be found here.

2.5. In contrast to the preference for option 1 expressed at public consultation, Oakington Parish Council has stated that it would only support a RTH if it was based entirely upon public transport and cycling (i.e. with no parking provision). The Parish Council is concerned about attracting additional traffic through the village, and states that it is prepared to support a Hub which meets the following conditions (some of which are included in our proposal):

Table 1: Oakington Parish Council conditions and project team comment

Parish Council condition	Comment
That it is a public transport hub only, with a bus turning circle.	Both options include a bus turning circle, but option 1 also includes parking.
That it has secure cycle storage.	Cycle lockers are included in both options.
That the Citi 6 bus service is extended such that the Hub becomes the terminus.	Stagecoach has indicated that it would be willing to re-route the Citi 6 route to serve the Hub, in place of serving Oakington High Street.
That through ticketing arrangements are devised.	This project scope does not include ticketing arrangements, although the Citi 6 and Busway services are covered by Stagecoach's Megarider tickets.
That the proposed cycleways to Cottenham and into Oakington are built contemporaneously with the construction of the Hub.	It is anticipated that cycleway improvements in the immediate vicinity of the RTH would be delivered as part of the project. The provision of a new cycleway link between Oakington and Cottenham is under consideration as part of the Greenways project.
Parking restrictions need to be introduced in Oakington and Westwick to prevent commuters parking in the surrounding streets, enforced at no cost to the Parish Council.	The provision of parking restrictions to discourage any overspill parking could be considered as part of the project delivery.
GCP must provide a commitment to maintain the Hub.	The Hub will be maintained by GCP or partner agency.

2.6. Oakington Parish Council has also expressed concern that the RTH would lead to increased local traffic. The area is expected to see traffic growth without the RTH as a result of housing development in the area, some of which can be captured by the RTH.

Sawston Rural Travel Hub

2.7. A site adjacent to Cambridge Road (north of Sawston) was originally identified for development, however feedback received during stakeholder engagement demonstrated little support for the identified site. Alternative sites in Sawston were suggested by stakeholders, which have now been the subject of a further feasibility study to assess their potential in comparison to the originally identified site.

Table 2: Prioritised list of potential Sawston Rural Travel Hub sites

Location of RTH
Babraham Road (east of Sawston) – approx. 300m east
Cambridge Road (north of Sawston) – original proposed site
London Road (south of Sawston) – between the A1301 and London Road
Spicers Corner (north west of Sawston) – west of the A1301

2.8. The full report can be found here.

2.9. All of these sites would require some modification of existing bus routes, although the modifications required to serve the Babraham Road site would be significantly greater than those to serve the London Road or Cambridge Road sites. Discussions undertaken with Stagecoach suggest that existing services could serve the Cambridge Road or London Road sites with only small adjustments, however the Spicers Corner site would require a more significant adjustment and the Babraham Road site would require an additional bus and driver, as well as increasing journey times for passengers in general.

Whittlesford Parkway Station Masterplan

2.10. Whittlesford was initially identified as a potential site for a pilot RTH in the feasibility study. However, due to the number of planned developments in the area the Executive Board agreed that a comprehensive transport masterplanning exercise should be undertaken. It also committed £70k for the provision of additional cycle parking for 200 bikes at Whittlesford Parkway Station, as match funding towards a £700k Greater Anglia-led bid for DfT grant funding.

2.11. The Stage 1 Baseline Report highlights the current situation in the area surrounding Whittlesford Parkway Station and identifies a long list of options.

2.12. The Stage 2 report has now been completed. This sets out proposals, the delivery of which will see the creation of a modern, accessible rural interchange. Stakeholders' views have been invited on the report, ahead of it going to the Joint Assembly and Executive Board. This report identifies the following key issues:

- Lack of step free access between platforms
- The safety and functioning of Station Road East
- Poor accessibility of the station by bus
- Congestion and severance issues on the A505
- Quantity, quality and location of parking provision
- Sustainable transport access from Duxford

2.13. The long list of schemes identified in the Stage 1 Report has been assessed in Stage 2 in line with the overarching objectives of the Masterplan and the specific issues to be addressed at the Parkway site. A preferred package of measures to transform the capacity and connectivity of the Parkway site has been identified. The prioritised list of schemes is shown in Appendix 1.

2.14. Stakeholders' initial views have been invited on the Stage 2 report, ahead of this meeting cycle. A series of points have been made, which have been broadly supportive although with several specific comments relating to the report and individual schemes. Key points raised through this process are set out in Appendix 2.

3. Options and Emerging Recommendations

Oakington Rural Travel Hub

3.1. Two options were the subject of recent local public consultation. The emerging preferred option, supported by the public consultation results, is option 1 which includes:

- 38 general parking spaces;
- 3 disabled parking spaces;
- Cycle lockers;

- Bus turnaround;
- Bus stop with shelter and Real Time Passenger Information board;
- Drop off zone; and
- Speed cushions.

3.2. Option 2 includes the same provision as option 1, except that option 2 includes no general parking spaces (although it does include the 3 disabled parking spaces).

3.3. The emerging recommendation for Oakington is to develop a detailed design and secure planning consent for the Oakington pilot RTH site to be brought back to the Executive Board to approve construction, and to compile and implement a monitoring and evaluation plan to evaluate the impacts of the site and give a clearer insight into the potential of the RTH concept.

3.4. For the purposes of illustration and comparability, an initial estimate has been made of total construction cost for each option – although this does not include land costs or the costs of further design and planning. The estimated construction cost for option 1 is £460k, or £350k for option 2. At this point the Executive Board is not being asked to commit funding for construction.

Sawston Rural Travel Hub

3.5. As outlined above, four options have been developed for a potential pilot RTH in Sawston (the originally identified location at Cambridge Road, and three additional options). These have been assessed and prioritised as shown in table 2, and are explained more thoroughly in the full report.

3.6. Each of the sites is problematic and have little local support. The emerging recommendation for the Executive Board is to defer consideration of a RTH site at Sawston to allow for further discussions with local stakeholders (who suggested the alternative sites) and to report back to the Board later in the year.

Whittlesford Parkway Station Masterplan

3.7. The Stage 2 report identifies a range of potential schemes for delivery by the various organisations involved, including among others GCP and the rail industry. The emerging recommendation is to undertake local public consultation on the Stage 2 report in early summer 2019 and develop a plan for the delivery of the schemes.

4. Next Steps and Milestones

4.1. If the Executive Board supports the recommendation for Whittlesford and the RTHs, the results from public consultation and engagement with stakeholders would be considered in the autumn 2019.

Background Papers

Oakington Rural Travel Hub consultation report: https://citydeal-live.storage.googleapis.com/upload/www.greatercambridge.org.uk/transport/transport-projects/Oakington%20Rural%20Travel%20Hub%20Consultation%20Report.pdf

Sawston Rural Travel Hub feasibility report: https://citydeal-live.storage.googleapis.com/upload/www.greatercambridge.org.uk/transport/transport-projects/RTH%20Sawston%20Feasibility%20Report%20v3.pdf

Whittlesford Parkway Station Masterplan Stage 1 Baseline Report: https://citydeal-live.storage.googleapis.com/upload/www.greatercambridge.org.uk/transport/transport-projects/Whittlesford%20Parkway%20Station%20Masterplan%20Stage%20One%20-%20Baseline%20Report%2015%2011%2018.pdf

Whittlesford Parkway Station Masterplan Stage 2 report: https://citydeal-live.storage.googleapis.com/upload/www.greatercambridge.org.uk/transport/transport-projects/Whittlesford%20Parkway%20Stage%20Two%20Report%20-%20Final.pdf

Appendix 1

Whittlesford Parkway Station Masterplan – prioritised list of schemes

Ref.	Scheme	Priority
GT.11	Station Road East junction signalisation and widening	High
PRK.02	Redevelopment of the main station car park	High
PT.02	Bus turning circle	High
AT.02	Lift and new footbridge	High
AT.04	Cycle parking	High
AT.07	Electric bike charging points	Medium
AT.11	Shared use path on London Road, Sawston	Medium
GT.09	A505 / A1301 McDonalds roundabout signalisation	Medium
GT.10	Reduced speed limit on the A505	Medium
GT.12	Signalisation of the A505 / Moorfield Road junction	Medium
GT.16	Station Road West 20mph zone	Medium
PRK.06	Reconfiguration of 'side car park'	Medium
PRK.10	On-street parking restrictions	Medium
PT.08	Public transport information	Medium
PT.09	Integrated ticketing	Medium
PT.10	Bus waiting facilities	Medium
AT.03	Station facilities	Medium
AT.06	Cycle hire facility	Medium
AT.09	Pedestrianisation of Station Road East	Medium
AT.18	Public realm enhancements on Station Road West	Medium
AT.12	Widen the shared use path alongside the A505 between Station Road and the A1301	Medium
AT.17	Continuous footway from Duxford Chapel to the junction with the A505	Medium
AT.19	Improved footways on Royston Road and Station Road West	Medium
AT.20	Cycle lanes on both sides of Station Road West	Medium
AT.25	Signalised crossing on the A505 at Moorfield Road	Medium
AT.31	Shared use path to the IWM via M11 J10	Medium
GT.06	Autonomous vehicle link to the Wellcome Genome Campus	Longer Term
GT.15	Royston Road one-way traffic	Longer Term
PRK.13	Bollards to restrict verge parking on Duxford Road	Longer Term
PRK.14	Formalise on-street parking on Royston Road	Longer Term
AT.13	Cycle path between Highway Depot and Mill Farm Lane	Longer Term
AT.21	Contra-flow cycle lane along Royston Road	Longer Term
AT.29	Multi-modal corridor to the Wellcome Genome Campus	Longer Term

Appendix 2

Whittlesford Parkway Station Masterplan Stage 2 report – key initial stakeholder comments

Overarching

- Recognition of the important contribution the station can make to the area as a true travel hub through the proposed improvements.
- Concern that the masterplan does not look far enough into the future.

Links to other schemes

- Suggestion further consideration should be given to links with proposals for the Cambridgeshire Autonomous Metro and for a wider A505 multi-modal study.

Prioritisation

- Suggestion of prioritising cycling and public transport interventions in particular.
- Concern that the A505/Moorfield Road junction has not been given the same priority as the A505/Station Road East junction.

Funding

- Concerns that linking funding of the package to developer contributions risks delaying the package's delivery, given the uncertainty about what will be included in the next Local Plan.

Bus services

- Emphasis on the need for the station to be adequately served by bus services, utilising the infrastructure that is delivered, in order for it to act as a true travel hub.

A505 and junctions

- Concern that signalising multiple junctions on the A505 could damage traffic flow and cause tailbacks on the M11 and smaller roads.
- Emphasis on the need for the A505/A1301 roundabout to be comprehensively designed in view of the full suite of nearby development proposals.
- Suggestion that the proposal for the A505/A1301 roundabout does not comply with design and road safety standards.
- Emphasis on the need for safe pedestrian and cycle crossings of the A505.

Car parking

- Concern that the main car park proposal would have insufficient capacity.
- Suggestion of reducing the main car park size by one deck to reduce its impact on Duxford Chapel.
- Suggestion that the current Depot sites would be a more appropriate location for the main car park.
- Concern that the proposed reduction in parking to the west of the station would have negative impacts, with a suggestion that the main car park in fact needs 1,000-2,000 spaces.
- Concern about the main car park proposal's visual amenity and traffic levels.
- Concern that the proposed linear provision of disabled parking to the west of the station could mean a long walk for some people who are less physically able.

- Suggestion that formalising on-street parking on Royston Road should be made a medium or high priority.

Bus turning circle

- Widespread support for a bus turning circle and its contribution to making the station a true multi-modal travel hub.
- Concern that the proposed turning circle is too tight to allow for multiple buses.
- Concern that the proposed bus stops would not be prominent enough from the platform, as well as the lack of cover between the platform and the bus stops.
- Suggestion that the bus turning circle should not wait to accompany the redevelopment of the main car park and A505/Station Road East signalisation as, whilst the combination of those interventions will bring the greatest benefits, there are bus services (including shuttle buses) that would benefit from the turning circle ahead of those other interventions.

Lift and new footbridge

- Widespread support for the proposal in improving access between platforms.
- Suggestion that the new footbridge should include a ramp to better facilitate crossing the bridge with bikes.

Cycling and walking interventions

- Support for the provision of pedestrian and cycling infrastructure, including the pedestrianisation of Station Road East and the links to Sawston.

One-way traffic on Royston Road

- Concern that the proposal does not allow for slow-moving, wide farm machinery that needs to access the land particularly on the north side of the road.

Perceived omissions

- Suggestion of providing enhanced cycle connectivity along Moorfield Road to Duxford.
- Concern that insufficient allowance is made for interchange to the west of the station, with a suggestion that at a minimum the existing bus stops on Duxford Road should be moved closer to Station Road West to reduce walking distances.
- Suggestions that the plans should include suitable ‘drop off areas’, which can cater for taxis as well as car sharing, etc.
- Concern about the absence of electric vehicle charging points in the plans.
- Concern that the delivery of Cambridge South Station will increase parking demand at and around Whittlesford Parkway.
- Suggestion that M11 junction 9 should be upgraded to allow the A505 to be downgraded.