



GREATER CAMBRIDGE PARTNERSHIP

Growing and sharing prosperity

Delivering our City Deal

6 November 2018

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 - SOUTH CAMBRIDGESHIRE HALL, CAMBOURNE BUSINESS PARK, CAMBOURNE, CB23 6EA** on **THURSDAY, 15 NOVEMBER 2018** 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	
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6.	Cambourne to Cambridge Better Public Transport Project The appendices to this report will follow.	15 - 40
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10.	Date of Next Meeting To note that the next meeting will take place at 2pm on Wednesday 27 February 2019.	

GREATER CAMBRIDGE PARTNERSHIP JOINT ASSEMBLY

Minutes of the Greater Cambridge Partnership Joint Assembly
held on Thursday, 20 September 2018 at 2.00pm at the Offices of South Cambridgeshire District
Council, Cambourne.

PRESENT:

Members of the Greater Cambridge Partnership Joint Assembly:

Councillor Tim Wotherspoon	Cambridgeshire County Council (Chairperson)
Councillor Tim Bick	Cambridge City Council (Vice Chairperson)
Councillor Dave Baigent	Cambridge City Council
Councillor Nicky Massey	Cambridge City Council
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
Christopher Walkinshaw	Cambridge Ahead
Andy Williams	AstraZeneca
Helen Valentine	Anglia Ruskin University
Dr John Wells	Cancer Research UK Cambridge Institute

Members or substitutes of the GCP Executive Board in attendance:

Councillor Ian Bates, GCP Transport Portfolio Holder	Cambridgeshire County Council
Claire Ruskin, GCP Smart Places Portfolio Holder	Business Representative

Officers/advisors:

Peter Blake	Transport Director, GCP
Beth Durham	Communications Manager, 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

1. APOLOGIES

There were no apologies for absence.

2. DECLARATIONS OF INTEREST

Christopher Walkinshaw declared a non-pecuniary interest in relation to agenda item 10 as he was employed by Marshalls of Cambridge on Cambridge Road.

Andy Williams declared a non-pecuniary interest in relation to agenda item 9 (West of Cambridge Package (M11/Junction 11 Park and Ride)) as AstraZeneca would be moving to the Biomedical Campus.

3. JOINT ASSEMBLY MEMBERSHIP

Councillor Dave Baigent was welcomed back as a member of the Joint Assembly. The Chairman noted that Councillor Baigent had replaced Councillor Kevin Price as a City Council representative on the Joint Assembly and, on behalf of the Joint Assembly, recorded thanks to Councillor Price for his contributions to the work of the GCP as a member of the Joint Assembly.

It was noted that Dr Wells would be continuing as a member of the Joint Assembly.

4. MINUTES OF PREVIOUS MEETING

The minutes of the meeting held on 14 June 2018 were agreed as a correct record of the meeting.

8. QUESTIONS FROM MEMBERS OF THE PUBLIC

One public question had been received. Councillor Dr. Jocelynn Scutt was invited to ask her question which related to agenda item 11 (Place Based Public Engagement Strategy). The question and a summary of the response is provided at Appendix A to the minutes.

6. PETITIONS

No petitions had been received.

7. A428 CAMBOURNE TO CAMBRIDGE PUBLIC TRANSPORT SCHEME

This item had been deferred until the November 2018 meeting of the Joint Assembly to allow the completion of detailed technical work by the Combined Authority's consultants. This was aimed at ensuring the scheme met alignment requirements with the Cambridge Area Metro (CAM) network proposals and other criteria such as cost, deliverability and timing.

8. CAMBRIDGE SOUTH EAST TRANSPORT STUDY

The Chairman reported apologies from the Chair of the Cambridge South East Transport Study Local Liaison Forum (LLF) who was unable to attend the meeting, but had asked for a statement to be read out on his behalf. It was noted that the LLF had met on 12 September 2018 and received a presentation on the paper being discussed by the Joint Assembly and Executive Board. The LLF had:

- Noted the outcomes of the consultation held early in 2018; and
- Broadly supported the further work proposed in relation to Strategy 1, but there had been some support for continuing to consider light rail and it had been noted

that if Strategy 1 proved to be impractical, Strategies 2 and 3 remained on the table.

The GCP Transport Director presented the report which set out the GCP's vision and objectives for public transport, the Cambridge South East Transport Study business case development work and the results of the public consultation undertaken at the end of 2017.

The GCP's Transport Portfolio Holder informed the Joint Assembly that the LLF meetings which he had attended had expressed their general support for the proposals.

Regarding Haverhill to Linton, the Joint Assembly was made aware that West Suffolk aspired to enhance its highways capacity in that area, which did not align with the aspirations of the GCP to reduce congestion in Cambridge while highways enhancement would facilitate congestion reaching Cambridge more quickly. The GCP was working with West Suffolk on this.

The Joint Assembly discussed the report and made the following points:

- Councillor Williams pointed out the need to serve the key employment areas. He felt that Strategy 1 did not serve the Babraham Research Campus and stopped short of Granta Park. The proposed routing for Strategy 1 needed to set out how it would serve these sites to ensure the vision and objectives for public transport were achieved.
- Councillor Massey queried the safety considerations of segregated routes.
- Andy Williams suggested that the relationship between the Sanger Institute, Babraham Research Campus and Granta Park needed to be understood. He also queried how far the existing Babraham park and ride site would impact on the business case for having a transport scheme further out of the city.
- Christopher Walkinshaw observed that the report did not set out the need for the capacity for the mass transit scheme. He urged that this be picked up. The proposals also needed to bear in mind the wider area and national highway network given that not everyone travelling from Haverhill wanted to come into Cambridge.
- Helen Valentine suggested that the overall benefit of the proposals had been underestimated. Cambridge South Station had not been taken into account and, if delivered, would increase the benefits significantly.
- Councillor Bick supported the positive direction of the proposals and welcomed the opportunity to tackle the environmental challenges and to enhance and improve the environment. He commented on the need to serve the key residential centres outside the city, such as Sawston, Stapleford and Great Shelford, as well as the key employment centres.
- Councillor Kavanagh observed that 25% of consultation respondents had not provided their postcodes. It was suggested that this may be due to a lobbying group responding to the consultation. In response, the GCP Chief Executive assured the Joint Assembly that the research team had sophisticated manual and automated technology to ensure the response to the public consultation was balanced and not just from one area.
- The GCP's Transport Portfolio Holder reported that County Councillor Kevin Cuffley was concerned that the villages of Sawston and Shelford were not forgotten in the development of the infrastructure. Councillor Bates emphasised the importance of keeping local members such as County Councillor Cuffley, involved.

In response to the Joint Assembly's comments, the Transport Director made the following points:

- The employment sites were the key drivers for usage of the proposed schemes, however he acknowledged the residential centres were also important.
- Not all users would travel along the corridor from end to end, so access points were key for local services to ensure they had access to the infrastructure.
- Technology had moved on since the creation of the Guided Busway. This scheme would be less intrusive. Safe walking and cycling was integral and was being designed into the project.
- The route was indicative and discussions had taken place with most of the landowners. Regular dialogue was taking place with Cambridge Past Present and Future (CPPF) to address its concerns.
- The future location of park and ride sites was important on this route. The aim was to get people onto public transport as soon as possible on their journeys in order to achieve traffic and environmental improvements. Park and ride sites therefore needed to be further out of the city. Their relationship to employment site locations was important along this route.
- Cambridge South Station could not be included in the proposals as this was not yet a committed scheme.

The Chairman summarised the conclusions of the debate noting that the Joint Assembly had broadly welcomed the proposals and supported their progression. However there had been concern about the reach of Strategy 1 to Babraham Research Campus, Granta Park and the Wellcome Genome Campus, as well as to the villages in the vicinity; Sawston, Stapleford and Great Shelford in particular. The opportunities for potential environmental enhancement offered by the scheme had been supported. There was a strong desire for Cambridge South Station to move up the agenda so that it could be incorporated into the business case.

9. WEST OF CAMBRIDGE PACKAGE (M11/JUNCTION 11 PARK AND RIDE)

The Joint Assembly considered the report which provided an update on the progress with the West of Cambridge package. It was noted that significant enhancement of park and ride capacity would still be needed in this location even if improvements were made to parking facilities at Foxton and Whittlesford.

The Joint Assembly was updated on work undertaken with the Combined Authority to ensure alignment of proposals and to avoid duplication. The report reflected and acknowledged the Combined Authority's view that park and ride should be temporary in nature as other planned enhancements would in future remove the need for park and ride. It was hoped that park and ride could be enhanced by extending the existing park and ride site at Trumpington, or through provision of a new site to the west of the M11. The agreement of the Executive Board would be sought to go out to public consultation on the best location for the park and ride facility. It would also be necessary to consider the need for further interventions along Trumpington Road to enhance bus reliability into the city centre. This would support extending park and ride provision.

In discussing the report, Joint Assembly members made the following points:

- Councillor Williams queried why detailed origin and destination data on existing users of Trumpington park and ride was not in the report. This data was needed in order to support the assumptions being made.
- The Combined Authority's desire for park and ride sites to be temporary in nature was acknowledged by Councillor Williams, however he pointed out that the sites would need to go through the planning process and this would require them to have proper road surfaces, lighting, drainage and facilities.
- Councillor Williams pointed out that Whittlesford was on the Liverpool Street line,

which was not the best line for getting into London. In response, the Chairperson informed the Joint Assembly that the West Anglia Taskforce was working towards four tracking a short section of the Liverpool Street line to enhance capacity, which would enable better access to London.

- Councillor Williams commented that Whittlesford station might be attractive to people using Stansted Airport and suggested that if there was a park and ride facility at Whittlesford, people using the airport might park at the park and ride site as this was cheaper than parking at the airport.
- Councillor Williams expressed concern that parking for users of Cambridge South Station was not mentioned in the report. It was important to bear in mind that many people travelled from villages such as Fulbourn to Cambridge North Station as they found this more convenient than using Cambridge Station. The same would happen when Cambridge South Station opened. As Cambridge South Station would be served by the busway and rapid transit system, people would also use this station to access Cambridge City.
- Councillor Sollom echoed Councillor Williams' earlier comments regarding the apparent lack of data analysis and the need to see quantification of the statements made in the report. He also pointed out that there were no other measures for mode shift along the A10 and queried whether this was to be abandoned, or whether there were other schemes that could be brought forward for that route.
- Councillor Topping informed the Joint Assembly that Harston Parish Council had expressed concern regarding the growth of the employment centres and the potential increase in rat running through villages if there were not proper transport solutions. Councillor Topping was concerned that another park and ride site in South Cambridgeshire would do little to tackle the congestion in Harston and surrounding areas. He felt that there needed to be more in the plans that benefitted the residents and villages of South Cambridgeshire.
- Councillor Massey queried the impact and timespan of the disruption that would be caused to the road network when the park and ride capacity was enhanced.
- Dr Wells felt the report lacked context, was missing detail around the transport network and how commuter destinations would be reached from the park and ride. The GCP needed to be able to tell a more compelling story of a 10 year evolving strategy for creating a strategic interchange network.
- Helen Valentine recognised that while provision of additional park and ride facilities was not a perfect solution, there was an urgent need to respond to the significant increase in private car trips, particularly given the additional traffic that would be generated with the next phase of the Biomedical Campus. She acknowledged the need for provision of further park and ride facilities but was not supportive of an extension to the existing site at Trumpington which was likely to be an expensive option and to give rise to objections. She expressed support for a new park and ride site off the M11 but emphasised that significant improvement measures along Trumpington Road were also essential.
- Councillor Bick agreed that the site off the M11 appeared to be the most appropriate location for additional park and ride capacity and indicated his support for the direction of the proposals in the report. However, he suggested that independent public transport access was needed across the M11, potentially using the agricultural bridge to the north of the junction. He sought clarification on where the public transport would come out having come over the M11 towards the city and whether buses might come out at the Trumpington Meadows Park. He urged that the benefits of the park should not be eroded. He hoped that the detail around this would come out in the public consultation. Councillor Bick also referred to the need for more details on the nature of the proposed traffic interventions along Trumpington Road.
- Andy Williams pointed out that Trumpington Road park and ride was already at capacity yet an additional 4000 employees would be coming to the Biomedical

Campus in due course, all of whom would need somewhere to park. He commented that Astrazeneca's interest in a park and ride at Hauxton was due to its links to the strategic road network.

- Councillor Kavanagh suggested that a new park and ride facility could be used to accommodate coaches bringing day trip tourists to the city and school mini buses.
- Councillor Kavanagh thought the option of increasing capacity at the existing Trumpington Road park and ride site should not be pursued and supported a further review of the option for a new park and ride site west of the M11.
- Councillor Bates informed the Joint Assembly that a study had been carried out which looked at the coaches coming into Cambridge and future demand, linking to tourism. The GCP Transport Director could provide further information on this study to anyone interested.
- Councillor Bates referred to the need to engage both with businesses and residents in Trumpington Road regarding potential improvement measures along the road.
- Councillor Wilson pointed out that the GCP was concerned about the temporary nature of park and ride sites and suggested that people might be discouraged from using the sites if facilities, such as lighting, were not adequate.
- Councillor Baigent commented that as residents' parking came on stream, those people who had previously parked in those areas might look to the park and ride sites for parking instead. He also emphasised the need for park and ride sites to have appropriate facilities such as toilets and suggested that there was scope for developing transport hubs providing services in the future.
- Councillor Massey pointed out that hospital staff parking was being reduced by a third from October 2018, which would increase the pressure on the capacity of the Trumpington park and ride site.
- Councillor Topping made a plea that if proposals for a Foxton park and ride and crossing were to come forward for consideration by the GCP Joint Assembly and Executive Board in December 2018, there should be early engagement with the residents of Foxton.

The GCP Transport Director made the following comments in response to the Joint Assembly:

- A lot of data had been gathered to justify the assumptions made in the report.
- To bring forward park and ride sites, the GCP would need to work with planning authorities to ensure that facilities were sufficient to meet planning requirements.
- The cost of developing the bridge access option would be considerable and unlikely to be compatible with the Combined Authority's desire for temporary solutions. Further discussions would be needed with the Combined Authority and planning authority.
- It was acknowledged that residents' parking increased the pressure on existing park and ride capacity.
- The proposals outlined in the report were not designed to fix the problems on the A10. Work was ongoing at Foxton, which would be presented to the Executive Board in December 2018.
- Cambridge South Station was not a committed scheme.
- Proposals had not reached the level of planning to determine the extent of disruption likely to be caused. The challenge of extending an existing park and ride site was that capacity would have to be taken out while the site was extended.
- Traffic light improvements would not be enough to deliver the improvements that were needed on Trumpington Road. It would be important to work with communities to develop solutions for the road.

The Chairperson summarised the discussion, noting that there had been a mixed reaction from the Joint Assembly to the proposals. Members had been concerned that the Trumpington Road park and ride site was already at capacity and that this situation would

be exacerbated by the further development of the Biomedical Campus. Members had generally concurred that additional park and ride capacity was needed urgently. However, Joint Assembly Members had challenged what was meant by “temporary” park and ride sites. The extent to which the proposed schemes contributed to mode shift had been question and the need to secure more benefits for residents of South Cambridgeshire had been highlighted. Reference had been made to the need for the GCP to be able to tell a more compelling story of a 10 year evolving strategy for creating a strategic interchange network. Finally, the need for improvements to Trumpington Road and to engage with residents on the proposals had been emphasised.

10. BETTER PUBLIC TRANSPORT PROJECT - WATERBEACH TO SCIENCE PARK AND EAST CAMBRIDGE CORRIDORS

The GCP Transport Director presented the report which set out the emerging recommendations for the better public transport project for Waterbeach to the Science Park and East Cambridge corridors. These corridors had been identified by the Executive Board as a priority project for developing public transport, walking and cycling improvements that were linked to the development of proposals for a regional rapid mass transit solution.

The Joint Assembly discussed the report and commented as follows:

- Christopher Walkinshaw urged that consideration be given to those accessing Cambridge from outside the GCP area.
- Andy Williams strongly endorsed the suggestion to look at the areas which had not yet been looked at. There had been a lot of focus on the west and south west but there was a need to consider the east, south east and the north of the area. The Transport Director assured the Joint Assembly that the boundary issue was recognised and this emphasised the need to work closely with the Combined Authority.
- Councillor Williams pointed out that the boundary on the east side of the GCP's area was very close to the city. Places on the east of the boundary such as Bottisham were as close to the city as places on the west such as Bourn, but were not covered by the GCP. He commented on the need for closer working with East Cambridgeshire District Council, pointing out that housing development in the District would generate commuter trips into Cambridge from the east side of the GCP's boundary. The GCP had very limited input into these developments. There was a need to liaise with both East Cambridgeshire and Forest Heath District Councils to ensure a more joined up transport strategy.
- The Chairperson commented that according to the Cambridgeshire and Peterborough Independent Economic Review (CPIER) report, East Cambridgeshire had demonstrated the fastest recent growth in Cambridgeshire.
- Councillor Wilson urged the GCP to take into account and engage with the communities along the A10. She referred to Cottenham, Willingham and Rampton in particular as they would be contributing to the congestion in the absence of any improvements to local public transport in this area. She pointed out that along this route many people had no alternatives than to use cars.
- Councillor Kavanagh commented that the report did not refer to the planned greenways route from Waterbeach to Cambridge which could accommodate cyclists.
- Councillor Bates requested that Joint Assembly Members be provided with links to existing reports about the work that had been undertaken on the A10 linking Kings Lynn to Cambridge and Ely to Cambridge. It was suggested that Joint Assembly Members should also be provided with a link to the report submitted to the County Council's Economy and Environment Committee on the Waterbeach planning application.

In summing up the debate, the Chairperson referred to the general support expressed by the Joint Assembly for the emerging recommendations in the report. Members had however commented on the need for closer working with East Cambridgeshire District Council in the light of the increased housing development in the District and the resultant impact in terms of generating commuter trips into the GCP's area. Additionally there had been a call for the GCP to take into account the communities along routes that would be contributing to congestion in the absence of improvements to public transport, such as Cottenham, Willingham and Rampton, where residents had no alternative to using cars.

11. PLACE BASED PUBLIC ENGAGEMENT STRATEGY

The GCP Communications Manager presented a report which provided an update on proposals to refresh and improve the GCP's Communications and Engagement Strategy. This built on experience to date, external reviews, including that carried out by The Consultation Institute, stakeholder feedback and in analysing the geography of multiple additional transport schemes. It proposed moving to a place based engagement model.

Joint Assembly members made the following comments:

- Councillor Massey expressed support for the proposals. She welcomed the use of social media and encouraged the use of better and more informative posters.
- Councillor Wilson informed the Joint Assembly that some communities, such as Cottenham for example, had no understanding of what the GCP schemes meant for their community. She pointed out that there had been engagement on rural travel hubs with Oakington residents but not with Cottenham residents. More engagement was needed with feeder villages such as Cottenham.
- Councillor Bick supported the proposals in the report but urged that engagement should not just tell communities what was happening; their input was needed to inform proposals. The Joint Assembly needed the views of the broader community to inform its discussions.
- Councillor Sollom pointed out the importance of community generated proposals and emphasised that communities needed to be brought along with the GCP.
- Councillor Topping pointed out the importance of keeping the public engaged in the work of the GCP.
- Helen Valentine, while agreeing with the proposals, raised concern about whether area meetings considering multiple topics at a meeting would get to the same level of detail that LLFs had and which had been beneficial to GCP projects to date. She also referred to the proposal on page 77 for LLF reports to be submitted to the Executive Board alongside Joint Assembly feedback and raised concern that input from LLFs might skip the Joint Assembly and go straight to the Executive Board. She felt it was important that the Joint Assembly was informed by the views of the LLFs when considering proposals.
- Jo Sainsbury supported the direction of the draft engagement calendar but raised concern that most consultation appeared to focus on transport. Communities also needed to be engaged in the wider aspects of the work of the GCP such as housing and skills.
- Councillor Wotherspoon highlighted the concern that LLFs had not had enough time to consider papers before Joint Assembly and Executive Board meetings. He supported them having more time to consider and discuss proposals and to form a community response to these.

The Communications Manager responded to the points raised by the Joint Assembly:

- With regard to the comments on lack of engagement with Cottenham, confirmed that she would make contact with Cottenham Parish Council.
- She clarified that the intention was not to bypass the Joint Assembly and take reports straight to the Executive Board, rather that a more formal report setting out LLF feedback would be submitted to the Board.
- The GCP did not want to lose local knowledge and local detail. Workshops on the detail of the schemes would supplement broader community meetings.
- The GCP would be launching an email update and alert system that members of the public could sign up to via the GCP website, to keep them informed.

The Chairperson noted that there was general support for proposals to refresh the GCP's Communications and Engagement Strategy. The Joint Assembly had highlighted the importance of keeping the community engaged with the work of the GCP and had indicated general support for the concept of broader place based community meetings. However members were keen that the level of detail that had been achieved through LLFs looking at schemes should not be lost and had flagged up a need to engage communities in the wider aspects of the GCP's work, such as housing and skills.

The Chairperson noted that Beth Durham, Communications Manager, would shortly be leaving the GCP and, on behalf of the Joint Assembly, thanked Beth for her work on behalf of the GCP.

12. QUARTERLY PROGRESS REPORT

County Councillor Susan van de Ven was invited to speak as local member on the A10 Melbourn to Royston cycle link. She updated the Joint Assembly on the progress made on the A10 cycle link, 75% of which was complete. The final segment to be completed would connect Melbourn to Royston. This would require a bridge with footings in two different counties. Hertfordshire County Council had funded a feasibility study and North Hertfordshire District Council had committed £55,000 towards funding the final section of the route. Big businesses were also contributing financially to this. The current position was very positive and Councillor van de Ven hoped that the GCP could push for the final stretch of the cycle route to be completed. The Chairman thanked Councillor van de Ven for her update.

The GCP's Head of Strategy and Programme presented the report which updated the Joint Assembly on progress across the GCP programme.

In response to a question asked at the last meeting. The Joint Assembly was informed that smart panels had been situated in the following locations:

- The West Cambridge site (two panels)
- Shire Hall
- Cowley Road
- South Cambridgeshire Hall, Cambourne
- AstraZeneca
- Anglia Ruskin University.

It was also intended to provide a smart panel at Cambridge North Station and discussions were taking place with the station's operator about this.

Responding to a second question asked at the last meeting, the Joint Assembly was informed that data was not collected on the average age of apprentices. Information was collected by age ranges; 16-18, 19-24 and over 25s. In the previous financial year, 46.6%

of apprentices were in the over 25s age category; 29% were in the 19-24 category and 24% were aged 16-18. It was noted that the GCP should be in a position to appoint an apprenticeships service provider in November 2018.

Joint Assembly members made the following comments:

- Councillor Massey informed officers that she had tried to use a wayfinder outside Cambridge Station but had been unable to find an option to change the language from English and had found that the map did not work. The direction sign was inaccurate and could mislead those that were not familiar with Cambridge. She referred to directional stones on the pavement in Peterborough and wondered if this was an option for Cambridge.
- Councillor Topping requested that further information be provided in the Transport Delivery Overview on the more immediate projects rather than detail about projects due in 2023.
- Regarding the Transport Delivery Overview, Heather Richards suggested it would be useful to see the projected design, construction and completion periods of the projects. This would enable the Joint Assembly to talk about the potential impact of projects and to enable a better view of the bigger picture.
- Councillor Bick queried what else was happening on skills in addition to the apprenticeships tender. In response to this the Joint Assembly was informed that the GCP was considering what else could be done on skills with the budget available, in addition to the apprenticeships service.
- Dr Wells suggested it would be useful to outline the forecast total cost of projects and forecast cash flow.

The Joint Assembly noted the progress across the GCP programme and the update on the A10 Melbourn to Royston Cycle Link and the Arbury Road Cross City Cycling Scheme. In summing up, the Chairperson highlighted Members' requests for more information around projected design/construction/completion periods of projects and detail around immediate projects rather than those due in 2023.

13. DATE OF NEXT MEETING

The Joint Assembly noted the next meeting would take place at 2.00 pm on Thursday 15 November 2018. It was anticipated that there could be considerable public interest in the items on the agenda and with that in mind it was agreed that the meeting would be held at South Cambridgeshire Hall in Cambourne.

The Meeting ended at 4.15 p.m.

Appendix A to the minutes of the 20th September 2018 meeting of the Greater Cambridge Partnership Joint Assembly – Public Questions

No	Questioner	Question	Response
Page 11	Councillor Dr Jocelynn Scutt, Chair of Milton Road Local Liaison Forum (LLF)	LLFs – Information and Communication	
		Milton Road Local Liaison Forum has worked closely with Milton Road Project officers and consultants. The expertise of members – particularly Milton Road Residents’ Association and Hurst Park Estate Residents Association representatives and their members – has been key in ensuring that the Project is optimally shaped to meet Greater Cambridge Partnership objectives consistent with Milton Road’s (and surrounding streets’) character as a residential area, in addition to Milton Road’s being a major link between Cambridge City and outer-lying areas.	The Partnership is committed to engaging with local communities and recognises the valuable contribution local residents can make to the development of a scheme, bringing as they do detailed knowledge of the area in which they live. The GCP is particularly mindful of the constructive engagement work that took place with the Milton Road LLF in respect of the Milton Road project and believes that the designs now being consulted on are testament to the extent of community contribution, as Cllr Scutt points out.
		The Consultation stage has now been reached as publicised by Twitter and on YouTube.	
		Members of the LLF, Residents Associations and residents have contacted me as chair of the LLF expressing concern that they learned of the Consultation’s commencement through the Twitter and YouTube publicity rather than by direct communication from the Greater Cambridge Partnership and that they had no role in the consultation format.	The reference to GCP’s intention to provide a greater lead-in time ‘to adequately plan and secure stakeholder buy-in prior to public consultation’ relates to the scheme as a whole, not to consultation exercises. To this end, GCP officers and the consultants spent significant time holding community meetings and workshops with members of the LLF to finesse the final scheme design.
		The GPC Engagement and LLF Review states an intention to provide a greater lead-in time ‘to adequately plan and secure stakeholder buy-in [sic] prior to public consultation’. This has not resulted in engagement with Milton Road LLF and particularly Residents’ Associations. This appears to have been subjugated to ‘focus groups’, the ‘Community Sounding Board’ and ‘key stakeholders’. Surely the latter must include the LLF and Residents’ Associations – at least their representatives on LLFs?	In preparing consultation materials the GCP will, as far as is practicable, sense check these for presentation and legibility only, not for any changes to the design. This will include discussion with LLF Chairs/Vice Chairs and other external stakeholders prior to publication if we are able to. But it is not practicable to seek to agree consultation materials with everyone who might be interested beforehand – the GCP has to own that process and take responsibility for it. The opportunity to engage more widely and obtain feedback comes from the consultation process itself.
		As LLF Chair I was notified by the GCP of the imminent release of the Milton Road Project consultation document. However, it was in its final form, no consultation occurring prior to this and not with the LLF or Residents Associations.	In terms of the reference to the community sounding board, these discussions took place with the best of intentions in order to have a wider reach of engagement with a range of different groups in the area. The sounding board has no official role in the consultation or any decision making remit. It was simply a way of bringing together a range of people with different views. The GCP’s intention is to enhance engagement activity, not to constrain it and is very aware of the excellent contribution which the LLF has made to the development of the Milton Road Scheme.
		Does the Greater Cambridge Partnership recognise that this is not best practice and ensure that in the future – to ensure ‘buy-in’ – such planning includes as ‘key stakeholders’ LLFs and particularly Residents’ Associations or at least their members on LLFs?	

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Agenda Item 4

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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Agenda Item 6



CAMBOURNE TO CAMBRIDGE BETTER PUBLIC TRANSPORT PROJECT

Report to: Greater Cambridge Partnership Joint Assembly

15th November 2018

Lead officer: Peter Blake – GCP Director of Transport

1. Purpose

- 1.1. This report provides an update on progress with developing the business case for the A428 Cambourne to Cambridge (C2C) Better Public Transport project.
- 1.2. The A428 Cambourne to Cambridge corridor is one of the key radial routes into Cambridge. It suffers considerably from congestion during peak times, particularly at the Cambridge end, at the junction with the M11. Modelling for the Greater Cambridge Partnership (GCP) has demonstrated that Maddingley Road has seen significant increases in traffic over the last decade. The key current conditions on the corridor include; long delays on the eastbound A1303 up to the Maddingley Road Park & Ride (P&R) site, and; significant journey time variability along the corridor, particularly eastbound in the morning peak and westbound in the evening peak.
- 1.2. There are also some large development sites on this corridor including the West of Cambridge site, Cambourne and Bourn.
- 1.3. The corridor has been identified by the Greater Cambridge Partnership's (GCP's) Executive Board, as a priority project for the first five years of the GCP.
- 1.4. The Joint Assembly is asked to note the progress to date and comment on the paper.

2. Context

- 2.1. This report provides a summary of the option assessment work carried out for development toward the Outline Business Case (OBC), since the presentation of the Strategic Outline Business Case (SOBC) in October 2016. The full OBC will present a single scheme between Cambourne and Cambridge for approval in October 2019 to progress to planning consent and powers for the construction of the works.
- 2.2. At this point in the development of the business case, work has focussed assessing proposed public transport infrastructure improvements on Phase 1 of the project between Maddingley Mulch roundabout and Grange Road, Cambridge, in particular the on and off-road alignment options.
- 2.3. Phase 2 of the project (Maddingley Mulch Roundabout to Bourn Airfield Roundabout) will form part of the full OBC, along with a final recommendation for a Park & Ride site along the route. A further public consultation on options for this section of the route is planned for early 2019.

- 2.4. The report includes input from the public consultation on Phase 1 which was carried out from November 2017 to January 2018, and subsequent ongoing technical work, the key outcomes of which are detailed in this report. Further information on this assessment work is contained within Appendix 1 (The Interim Report).
- 2.5. A report seeking a final decision on the scheme, including both Phase 1 and Phase 2 route alignments, and Park & Ride site, will be brought to the Executive Board in October 2019.

Strategic Case

- 2.6. The C2C Better Public Transport project ("the project") supports the Greater Cambridge Partnership (GCP) transport vision of delivering a world class transport network that makes it easy to get into, out of, and around Cambridge in ways that enhance the environment and retain the beauty of the city. Transport infrastructure is essential in supporting the delivery of sustained growth, prosperity and quality of life for the people of Greater Cambridge. Earlier work in the SOBC had identified a strong policy and strategic basis for delivering a High Quality Public Transport (HQPT) scheme between Cambourne and Cambridge and the strategic context assessment work has further reinforced this case. The project is part of the Greater Cambridge Partnerships programme using devolved City Deal funding. This is a comprehensive package of measures which aim to tackle congestion within Cambridge with the creation of a world class transport system, to achieve a reduction in peak-time traffic levels in Cambridge by 10-15% by 2031.
- 2.7. Between 2011 and 2031 there are a planned additional 15,500 new homes and 20,000 new jobs in development locations to the west and south of Cambridge, at Cambridge Biomedical Campus, Cambridge Northern Fringe, Cambridge North West, Cambridge Southern Fringe, West Cambridge, Cambourne and Bourn Airfield. A significant proportion of new residents and new employees will need to travel between Cambourne and Cambridge.
- 2.8. As such to meet this growing demand the vision of the C2C Project as defined in the business case is:

"To connect existing and new communities along the A428/A1303 to places of employment, study and key services to enable the sustainable growth for Greater Cambridge. We will deliver this through improved, faster and more reliable HQPT services, together with high quality cycling and walking facilities serving a new Park & Ride site to the west of Cambridge."
- 2.9. The (C2C) Better Public Transport project therefore forms an important part of the overall GCP aim to develop a sustainable transport network for Greater Cambridge that keeps people, business and ideas connected, as the area continues to grow; to make it easy to get into, out of, and around Cambridge by high quality public transport, by bike and on foot.
- 2.10. The GCP delivery programme is based on the policy framework established by the local planning and transport authorities. These include the recently agreed Local Plans for Cambridge and South Cambridgeshire and emergent transport policy of the Cambridgeshire and Peterborough Combined Authority (CPCA) and in particular the compatibility of the project with the proposed Cambridge Area Metro (CAM) - a mass rapid transit scheme.
- 2.11. The Transport Strategy for Cambridgeshire and South Cambridgeshire (TSCSC) prepared in parallel with the recently adopted Local Plans was agreed in March 2014. The strategy provides a plan to manage the rising population and increasing demand on the travel network by shifting people from cars to other means of travel including public transport, walking and cycling. Policy within the TSCSC requires a range of infrastructure interventions

on the St Neots and Cambourne to Cambridge corridor as a key part of the integrated land use and transport strategy responding to levels of planned growth. Cambourne to Cambridge is one of the key growth areas identified in the adopted Local Plan. The Local Plan policies for the strategic developments sites along the corridor requires High Quality Public Transport (HQPT) to link new homes to employment and services in and around Cambridge.

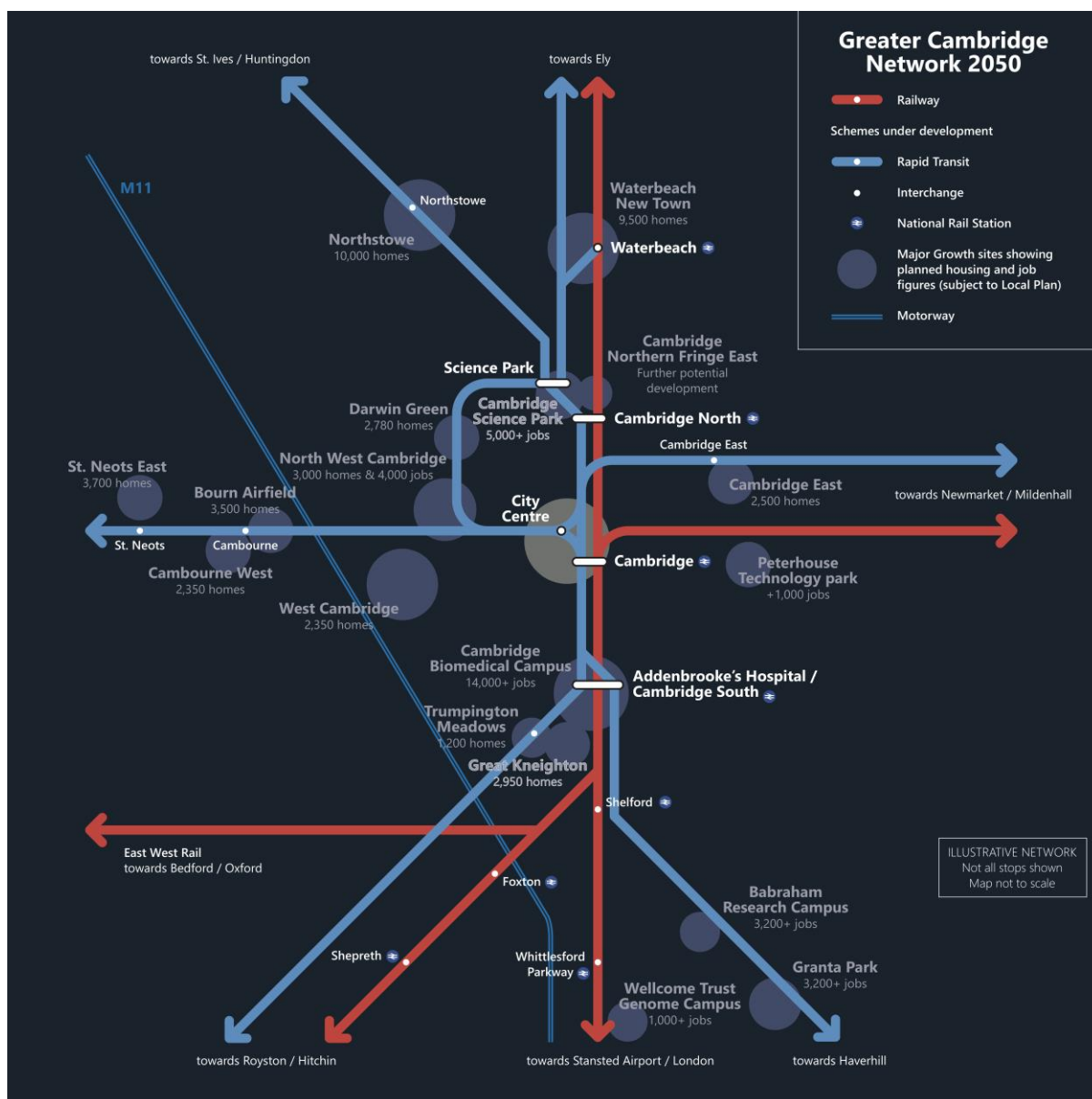


Figure 1– Potential GCP HQPT network

- 2.12 As set out in Figure 1 the C2C scheme, as part of the wider HQPT network (CAM), will provide a step change in public transport accessibility, as well as safe and segregated cycling and pedestrian routes into key destinations in and around Cambridge. By reducing growth in congestion, offering environmental mitigation and enhancement and providing a realistic alternative for many car journeys, the scheme will result in a public benefit for new and existing residents.

National Infrastructure Commission (NIC)

- 2.13 The National Infrastructure Commission's (NIC) report on the Cambridge – Milton Keynes – Oxford Growth Corridor has concluded that improvements in east-west transport connectivity along the corridor are necessary to underpin the area's long term economic success, and alleviate the area's "chronic undersupply of homes [which] could jeopardise

growth, limit access to labour and put prosperity at risk". It estimates that infrastructure investment could support the delivery of up to 1 million new homes in a broad corridor between Oxford and Cambridge. This level of development will inevitably place additional pressure A428/A1303 and surrounding routes. Calling for City-scale transport infrastructure to enable growth, the NIC focuses on:

"maximising the opportunities associated with the development of East West Rail and the Oxford-Cambridge Expressway – integrating mass rapid transit with these schemes to enable effective first/last mile connectivity, in a way that enhances the value of these strategic infrastructure projects".

- 2.14 The NIC has identified the Cambridge – Milton Keynes – Oxford arc as a national priority stating that its world-class research, innovation and technology can help the UK prosper in a changing global economy.

Cambridgeshire and Peterborough Combined Authority

- 2.15 The Cambridgeshire and Peterborough Combined Authority (CPCA) was established in March 2017 and is led by an elected Mayor and Board comprising of the constituent local authorities. The key ambitions for the CPCA include:
- Doubling the size of the local economy;
 - Accelerating house building rates to meet local and UK need; and
 - Delivering outstanding and much needed connectivity in terms of transport and digital links.
- 2.16 The CPCA is responsible for transport infrastructure improvement and the Local Transport Plan. The existing Local Transport Plan 2011 to 2026 remains the existing key transport policy framework at this time which emphasises the need for new developments to be supported by sustainable transport measures such as HQTP.
- 2.17 In December 2017 Steer Davies Gleave delivered an options appraisal report jointly funded by the Combined Authority and the GCP on the possibility of developing a rapid mass transport network. This favoured a mass transit system in Greater Cambridge based on innovative rubber tyred tram like vehicles utilising autonomous technology as the preferred solution – described as CAM.
- 2.18 On 30 January 2018 the Combined Authority agreed to fund further development of the proposed CAM, a mass rapid transit network to Strategic OBC. The CAM proposal was formally accepted by the GCP on 8 February 2018. The Combined Authority resolved also to *"liaise with the GCP to ensure GCP's current and future plans for HQPT corridors were consistent and readily adaptable to the emerging proposition for a CAM network."*
- 2.19 The potential CAM network is set out in **Figure 2** and includes an alignment towards Cambourne.

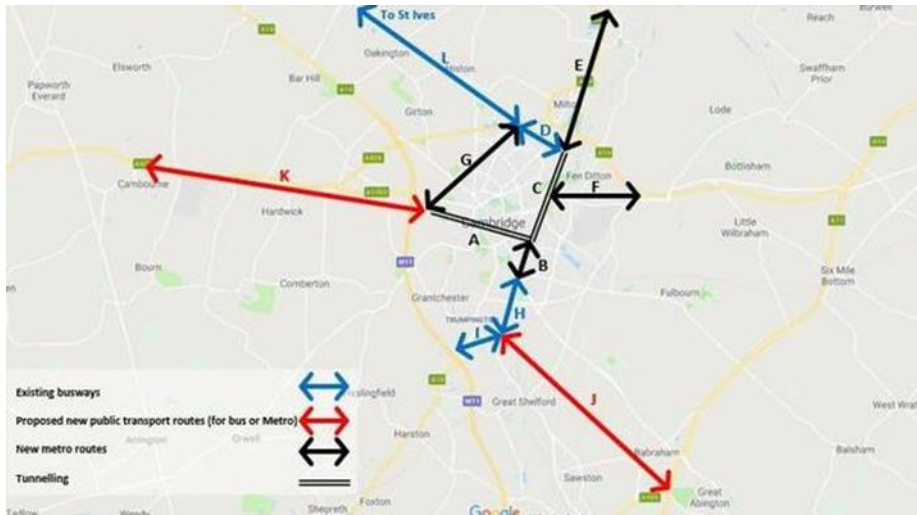


Figure 2– Potential CAM network

2.20 The CPCA has subsequently undertaken a review of alignment between the C2C scheme and the emerging CAM. The CPCA review, undertaken by consultants Arup, concluded the following key findings:

- The process undertaken to date to determine the route is robust and identified the optimal solution for the corridor;
- The route should be reclassified a CAM route;
- The vehicle operating along the route should comply with the principles of the CAM being a rubber tyred, electrically powered vehicle;
- The route must continue to be designed to align with the overarching CAM network; and
- The route is connected into a tunnelled CAM network thereby providing a high frequency, pollution free public transport option into and across Cambridge centre and the entire CAM network.

2.21 A report on the review undertaken by consultants Arup, is attached in Appendix 2.

2.22 In ensuring consistency with the CAM it is considered that the scheme developed by GCP will need to deliver:

- A HQPT system using rapid transit technology.
- High frequency, reliable services delivering maximum connectivity.
- Continued modal shift away from car usage to public transport.
- Capacity provided for growth, supporting transit-oriented development.
- State of the art environmental technology, with easily accessible, environmentally friendly low emission vehicles such as electric/hybrids or similar.
- Fully integrated solution, including ticketing and linkages with the wider public transport network to maximise travel opportunities.

2.23 At the CPCA meeting on 31 October the Executive Board agreed to support the recommendations of the Arup report and agreed that the Cambourne to Cambridge scheme is aligned and should be progressed by the GCP.

3. Developing a Business Case

3.1 The C2C project was commissioned in 2014 with initial public consultation on high level options being undertaken in 2015. The method of progressing the project is via a 'business case' which assesses the overall case for public investment by measuring the public benefits

and costs of different options. The business case is formed from 5 'cases' for investment in line with HM Treasury guidance and the Department for Transport's' Transport Assessment Guidance. Details of the Business Case stages and further work undertaken since the public consultation ending early in 2018 can be found in Appendix 1.

- 3.2 Following presentation of the initial stage of the business case the decision was taken by the GCP Executive Board in October 2016 to agree in principle to a segregated route given the wider economic benefits and undertake further work.

4. Further Business Case Development

- 4.1 Following the Executive Board decision of October 2016, the next stage of business case development has included the following work and activities to address the Board's specific decisions and instructions:

- Reviewing the strategic basis for the project.
- Developing specific route alignments within the previously agreed Catchment Area to identify the best alignment.
- Further development of 'on road' options to compare against an off road option including environmental assessments.
- Review of P&R sites along the route.
- Work with the GCP Greenway project teams to review cycling potential along the corridor.
- Engagement with third parties including developers along the route.

- 4.2 Updates were provided to the GCP Executive Board in July 2017 on the development of the Local Liaison Forum (LLF) "Option 6" and the further review of Park & Ride sites along the corridor and in October 2017 the GCP Executive Board agreed that public consultation be undertaken as part of the further development of the business case.

Public Consultation

- 4.3 The public consultation was undertaken between 13 November 2017 and 29 January 2018. The public consultation was quality assured by the Consultation Institute, an independent best practice Institute, promoting high-quality public and stakeholder consultation in the public, private and voluntary sectors.
- 4.4 The public consultation involved:
- Distribution of over 14,000 brochures.
 - 21 drop in sessions including both fixed exhibitions and road shows.
 - A series of focus groups.
 - Extensive use of social and traditional media to raise awareness.
- 4.5 Because of the range of developing strategic considerations, the consultation only included proposals for Phase 1 HQPT transport infrastructure options from Madingley Mulch roundabout to Grange Road and the final shortlisted Park & Ride sites.
- 4.6 Three route and two potential Park & Ride site locations were presented in the public consultation.
- 4.7 The public consultation achieved 2,049 complete responses. A significant amount of qualitative feedback was gathered via the questionnaire, at road-shows, via email and social media and at other meetings including the formal workshops.

- 4.8 A range of views were expressed during the course of the public consultation exercise, particularly against the off-road alignments by those residents living along the route.
- 4.9 In qualitative terms a majority of people did not support the off-road alignments, expressing concern regarding the environmental impact of the project, particularly around the Coton area and the West Fields location.

Response to Public Consultation

- 4.10 The objective of public consultation in the option development process is to help inform and understand stakeholder concerns, issues and opportunities and to feed these into the ongoing business case process. Public Consultation events and ongoing stakeholder engagement inform the emerging scheme and as such it would be expected that options will continue to develop following the public consultation.
- 4.11 As stated, the majority of respondents did not support the off road options, and therefore the concerns expressed should be reflected in the final proposals, either by the choice of proposal or the mitigation plan developed as part of the emerging proposals. In terms of mitigation on any off-road alignment this could include:
- Extensive landscaping and design proposals to minimise visual and environmental impact, this should include exploring the feasibility of developing environmental safeguards along any proposed routes, for example the development of a linear park (or similar).
 - High quality, environmental sustainable vehicles to improve air quality and reduce noise, e.g. electric/hybrids.
 - Infrastructure to reflect local requirements and the local surroundings.
 - Development of extensive walking and cycling facilities along any corridor.
 - Clearly demonstrate the scheme's connectivity to wider public transport network, including the CAM, and in particular, integration with the future tunnelled sections.

5. Technical Work - key findings

- 5.1 The technical work confirmed the earlier findings of the SOBC, namely that the need for a HQPT scheme is clearly identified and supported in policy given existing and rising congestion between Cambourne and Cambridge and the desire for economic growth stated in national and local policy.
- 5.2 The underlying causes, which together set out the need for intervention include:
- Population and housing growth.
 - Employment growth.
 - The increasing need for travel.
 - Levels of car ownership.
 - The quality of existing transport infrastructure.
- 5.3 Based on these causes the project objectives are:
- To achieve improved accessibility to support the **economic growth** of Greater Cambridge.
 - To deliver **a sustainable transport network**/system that connects people between Cambourne and Cambridge along the A428/A1303.
 - Contribute to enhanced quality of life, **relieving congestion** and improving air quality within the surrounding areas along the corridor and within Cambridge City Centre.

5.4 The project objectives are further amplified in the Defining a Transformational Public Transport paper on the Joint Assembly agenda, February 2018

5.5 A summary of existing congestion issues are set out in **Table 1**

Section of corridor	Issue
A428 between Caxton Gibbet and St Neots	<ul style="list-style-type: none"> • High journey time variability • Delays of up to 10 minutes eastbound in the AM Peak period • Delays of up to 3 minutes in the PM Peak period
The A1303 approach into Cambridge	<ul style="list-style-type: none"> • High levels of variability and congestion • Delays of up to 18 minutes travelling in to Cambridge in the AM Peak • Delays of up to 4 minutes travelling westbound in the PM Peak.
A1303 / M11 Junction	<ul style="list-style-type: none"> • Up to 80% of the route experiencing queuing in the AM Peak when travelling eastbound
Madingley Road Park & Ride site	<ul style="list-style-type: none"> • Interaction of traffic entering and leaving the well-used Madingley Road Park & Ride site, with the signalised junction here contributing to variability and delay.

Source: Trafficmaster

Table 1: Existing Congestion 'hotspots'

5.6 Average speed data, demonstrating significant delay on the network is provided in **Figure 3**

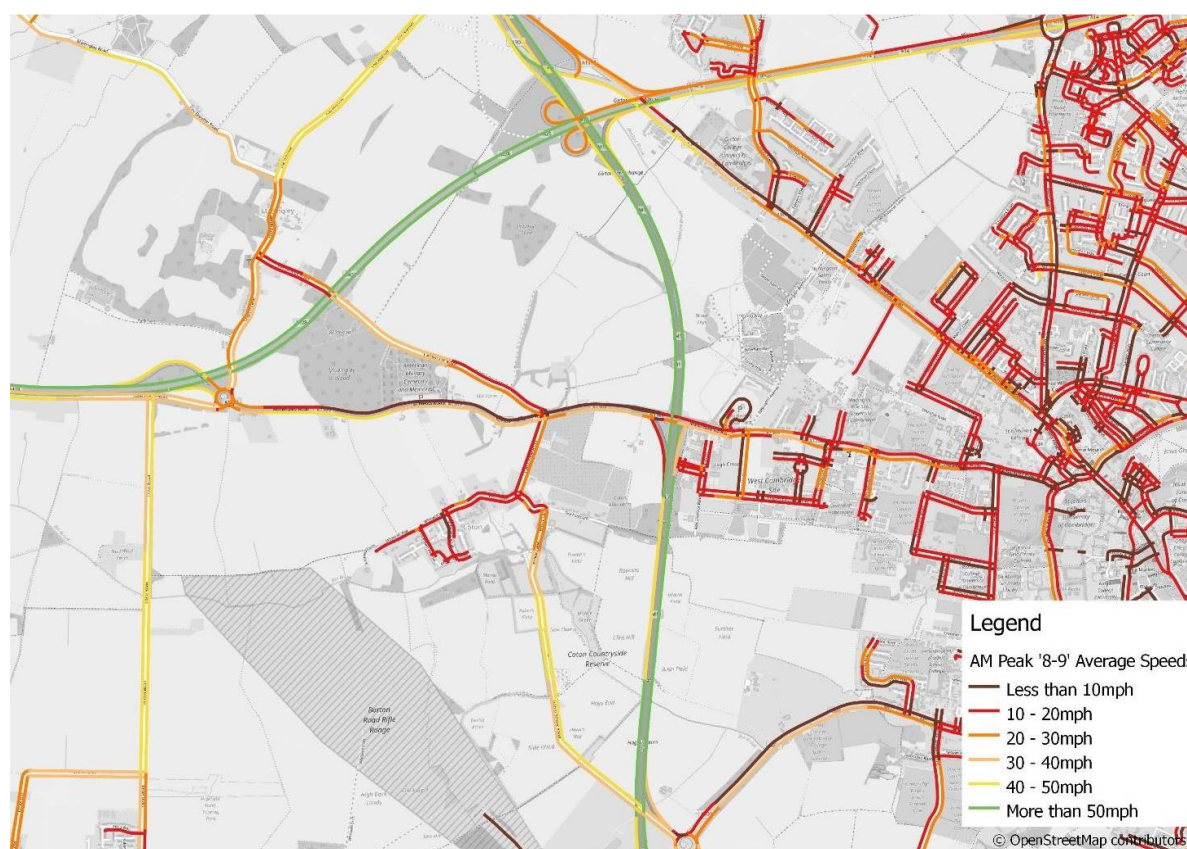


Figure 3 – Average Speed for traffic (AM Peak 2016)

5.7 Considering forecast growth, between 2011 and 2031, car trips along the A428/A1303 corridor eastbound are forecast to increase by:

- 45% in the AM Peak hour;
- 70% in the Inter-peak period, and;
- 50% in the PM Peak period.

- 5.8 The existing car mode share and car ownership within the A428/A1303 corridor is high, and future growth is expected to generate additional demand for car use in this area. Therefore, HQPT plus additional cycling and walking facilities has a key role in providing an attractive and competitive alternative to car use, which would alleviate, congestion, poor journey time reliability and delay. Crucially, such intervention will help to accommodate future growth planned to the west of Cambridge, improve access to housing and employment sites alike, and improve quality of life in the local communities.
- 5.9 Reviews of existing public transport provision identified that within the A428 / A1303 corridor, existing public transport infrastructure offers little or no competitive advantage over private cars. This has meant that car use is the dominant transport mode and as a result has caused congestion on the wider transport network. This in turn causes disruption to existing public transport routes.
- 5.10 The existing cycling network has sections of segregated links of uneven quality but is disconnected and does not in total provide a high segregated route between Cambourne and Cambridge which would cater for the potential high modal share of cyclists along the corridor.

6 Basis of Selecting an Option

- 6.1 As part of part of the OBC, the Strategic Case, has set out the strategic and policy context, and provided an assessment of the project options within the transport and wider policy context requirements for the delivery of sustained economic growth, reduction of traffic congestion and increased prosperity and quality of life for the people of Greater Cambridge.

Wider Economic Benefits

- 6.2 Greater Cambridge is one of the UK's fastest-growing and most productive cities and is a key hotspot for regional and national job creation. Between 2009 and 2016 total jobs growth in Cambridge was 17.6% (in absolute terms) compared to 12.0% regionally and 10.5% nationally.
- 6.3 Greater Cambridge, is a thriving economy and a key driver of the wider CPCA economy, representing 34% of its total population, 41% of total employees and 42% of all Gross Value Added (GVA). The Mayor and CPCA aspires to double GDP in the region.
- 6.4 The recently published final report, by the Cambridgeshire and Peterborough Independent Economic Commission provides the latest evidence that jobs growth in the area has been faster than anticipated and that future growth could, potentially outstrip national indicators. The report stated, "Rising costs from an infrastructure deficit that has built up over time threaten the ongoing success of the Cambridge Phenomenon, which represents 67% of the region's output. Infrastructure issues are most urgent in and around Cambridge and must be dealt with as a first priority..." This may further revise the estimates of economic benefits attributed to the proposed HQPT interventions. A key recommendation was that, "A package of transport and other infrastructure projects to alleviate the growing pains of Greater Cambridge should be considered the single most important infrastructure priority".
- 6.5 In developing the business case the different levels of public transport intervention were assessed for their impact on wider (non-transport) economic growth expressed as Gross Value Added (GVA). GVA measures the total value of goods and services. This assessment found that a new segregated off road alignment for public transport would have significant wider economic benefits.

- 6.6 The work done to date has identified the need for HQPT infrastructure to unlock economic growth by enabling the delivery of new housing and employment. The earlier stage of the business case in 2016 identified £680m of GVA attributable to a segregated public transport scheme between Cambourne and Cambridge which was significantly higher than options using the existing public highway.
- 6.7 The results from further GVA assessment show that an off-road solution between Cambourne and Cambridge has the potential to deliver a significantly greater level of Wider Economic Benefits at the local level for Greater Cambridge than the on road and offer a high ratio of return on investment. This is set out in Table 2

Benefit (£,000m)	Do Something 2a
GVA benefits – <u>Greater Cambridge level</u>	679,300
Present Value Costs (PVC)	184,586
OVERALL IMPACT	
“Local WEBs ratio”	3.68

Table 2: Analysis of Monetised Costs and Wider Economic Benefits at Greater Cambridge local level

- 6.8 **Figure 4** summarises the findings from the Value for Money assessment, and includes the relative benefits of the on and off road options against the current scheme costs to demonstrate how the off-road option has a greater value for money in delivering Wider Economic Benefits.

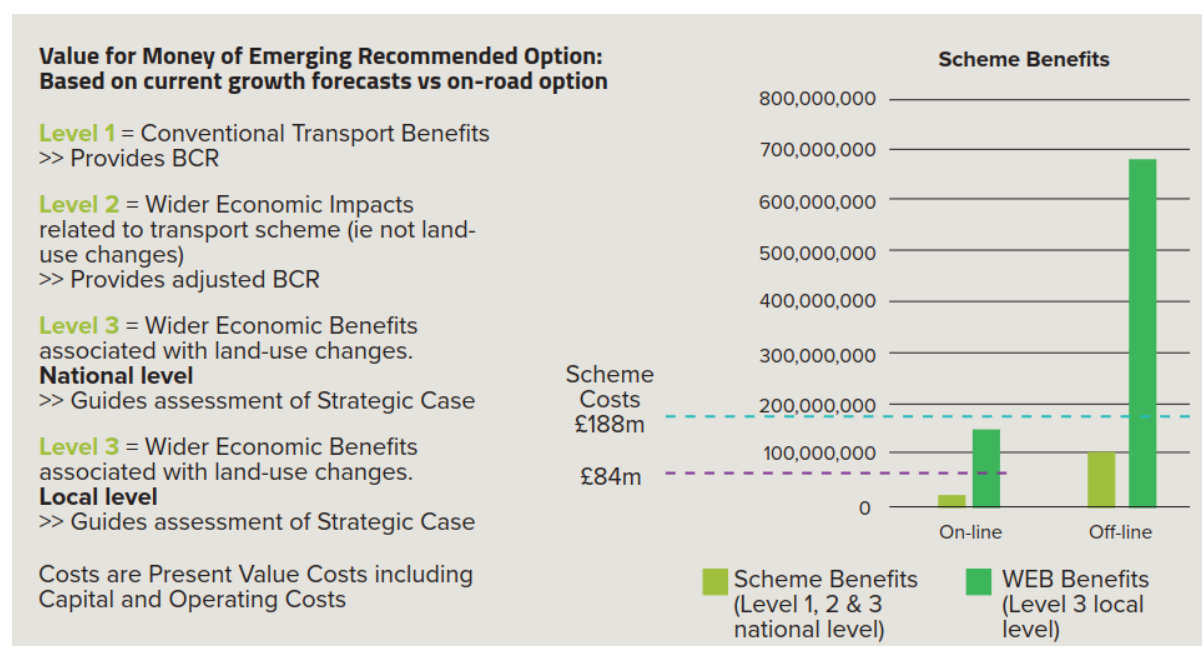


Figure 4 – On/Off Road GVA

- 6.9 The work concludes that both existing and emerging policy, as well as the specific objectives of the GCP, continue to support a recommendation for the need to significantly improve public transport and other sustainable modes between Cambourne and Cambridge.

Comparison of On vs Off Options between Madingley Mulch and Grange Road

- 6.10 One of the main outcomes of the consultation was the development of an “Optimised” on-road option. This came from the desire to have both inbound and outbound priority as proposed in option B but without the need for gantry structures and within the highway

boundary. Following a workshop with community stakeholders the optimisation was modelled to assess the impact of the following changes:

- Westbound bus priority at Maddingley Mulch Roundabout.
- Signalisation of Cambridge Road Junction.
- Lane arrangement at the M11 Junction 13.
- Layout of existing Park & Ride entrance and bus priority at High Cross Junction.
- Signalisation of Grange Road Junction.
- Removal of Bus lane from West Cambridge development to Storeys Lane.

Apart from Cambridge Road and Grange Road junction signalling, which showed no benefit when modelled, all the other optimisations were included as the 'Optimised'; final on-road option taken forward for further assessment.

6.11 Table 3 outlines a comparison of the 'Optimised'; on and off route options between Maddingley Mulch and Grange Road;

	PT Journey time	Reliability (AM Peak Journey Time variation)	CAM Future proofing	Patronage	PT Capacity	Benefits/disbenefits for other modes	Cycling
On Road	17 mins	14% reduction in Journey Time variability	Not suitable for CAM or tunnels	2,300-3,700 daily depending on final scheme and park and ride options	Limited due to constraints of road network	Disbenefits other road users due to need to provide bus priority	Improvements to 3.4km of existing shared cycle lanes / footpaths
Off Road	12 mins	74% reduction in Journey Time variability	CAM compliant		High due to dedicated infrastructure	Low impact on other road users except where it crosses public highway. Significant cycling benefits	5km of new shared-cycle lanes / footpaths

Table 3: Key Transport Comparators On vs Off Road between Maddingley Mulch roundabout and Grange Road Cambridge

6.12 The Key Findings from the assessment Off-Road:

- Aligns better with transport policy.
- More reliable journey.
- Less disruption to existing roads.
- Policy compliance – Aligns with CAM.
- Better in terms of Heritage and biodiversity.

6.13 Key Findings from the assessment On-Road:

- Has less impact on Green Belt.
- Lower Cost.

6.14 In addition, Option B in the public consultation included a 'tidal' bus lane which reversed bus travel direction depending on the time of day. There are no tidal bus lanes in the UK although there are a number of tidal lanes which are used for general traffic. The relative infrequency of buses adds a level of uncertainty for road users as to which direction to expect on coming vehicles. Overhead gantries are required for tidal lanes for general traffic as set out in the Departments for Transport (DfT), Design Manual for Road and Bridges (BD51/98). It should be noted that current guidance refers to tidal lanes for general traffic: DfT guidance does not address on a central tidal bus lane of this type and so the Highway Authority may well wish to refer to DfT for approval which should not be taken for granted.

- 6.15 The 19 gantries would require a minimum height of 5.5 metres from the surface of the carriageway and a maximum height of 9m (Traffic Signs Regulations and General Direction (TSRGD) 2016). The spacing shown in the work associated with the September 2017 End of Stage Report provides useful guidance as to likely spacing. The frequency of these gantries would be a factor of local safety issues such as visibility along the road and the number of side roads/private entrances which would require movements across the tidal lane and would be refined during Road Safety Audits in dialogue with the Highway Authority and DfT.
- 6.16 The environmental impact of these gantries would not be in-significant in terms of visual intrusion as well as introducing large urban structures on a route of rural character into Cambridge.
- 6.17 In evaluating the overall cost/benefit of tidal lanes against the other options, the key conclusion was that the additional impacts and costs would not be outweighed by greater benefits for the business case.
- 6.18 The off road option is the only solution that presents the potential of a segregated route for mass rapid transit that is close to population centres, and with potential capacity to meet the development pressures along the corridor. It is the only solution that provides for delivery of the long term transport objectives of both the GCP and the Combined Authority, and it is the only option that is compliant with the emerging CAM concept.

Environment

- 6.19 Environmental considerations are summarised in Table 4, including key concerns raised in the public consultation which included the potential effect upon the landscape and ecology particularly near Coton. Natural England stated in regard to Madingley Wood, a Site of Special Scientific Interest (SSSI) that the, “off-line option appears to be sufficiently distanced from the designated site and therefore unlikely to have any adverse impact. Historic England considered that the effects of the off road route, “...could be minimised or avoided subject to a robust mitigation strategy.
- 6.20 The role of environmental impact assessment within the current stage of the business case appraisal process is to understand the overall benefits and disbenefits of each option, so that these can be taken into account when determining which option offers the greatest value for money. The next stage of the business case development will include further detailed assessment of environmental impacts.

	Key Concerns	Environmental Considerations	
		On Road	Off Road
Designated Environmental Sites	Concerns that the on-road Route A option would impact on the SSSI.	Passes SSSI at Madingley Wood	Does not directly pass these sensitive sites
Green Belt	Impact of the off-road route on the Green Belt, particularly at the West Fields and at the two proposed Park & Ride sites.	Requires modification to existing highway in green belt	Is in undeveloped green belt land - Potential effect on openness of Green Belt
Ecology	Concerns that the off-road route would	Some loss of habitat due to road widening –	Loss of agricultural land with habitat –

	impact on wildlife sites close to Coton.	less potential for mitigation or enhancement (including SSSI)	significant potential for enhancement
Noise/ Air Quality	Concerns relating to noise, and to a lesser extent air quality, from the buses, where routes passed residential areas and at housing close to the proposed Park & Ride sites.	Marginal – existing busy highway – low number of bus movements Mitigated by low emission hybrid electric HQPT vehicles	Marginal – low numbers of bus movements Mitigated by low emission hybrid electric HQPT vehicles
Visual Impact	Concerns relating to light pollution where the routes passed residential areas and for housing close to the proposals Park & Ride sites. Concerns relating to the visual impact of the gantries proposed in Route B, the Waterworks site due to the topography and to a lesser extent, Scotland Farm.	Widening of existing carriageway and loss of road side vegetation. Gantries required Less opportunity for mitigation	the alignment of route using topography integrates into landscape Visual impact can be more effectively mitigated
Landscaping	Damage to the landscape.	Loss of vegetation, including trees, next to highway - less potential for mitigation due to adjoining properties	Loss of vegetation, including trees. Potential for overall increase in native hedgerow and trees
Social benefits (access to education, leisure, employment)	Waterworks site had better access to employment sites south of Cambridge. Although the off-road route was the most expensive, it was considered to be more future proofed to upcoming housing and employment sites.	Some improvement to bus and cycle accessibility	Significant improvements to bus and cycle accessibility
Community Impacts	The off-road route would not benefit residents in Coton as there was no planned stop.	No HQPT public transport service or direct access to walking or cycling infrastructure	Cycling and walking alignment closer to Coton village.

	For on road option Route A, there were concerns regarding the impact on Clare Hall.		
Heritage	Concerns that the on-road Route A option would impact on conservation areas, such as the American Cemetery Memorial.	Passes American Cemetery	Does not directly pass the site Potential effect on archaeology
Flood Risk	Impact of the off-road route on properties close to the West Fields part of which is the Bin Brook flood plain.	Neutral effect	Neutral effect – Bin Brook crossing can be designed to have no negative effect on flood risk
Land & Property	Permanent loss of residential property or garden.	May require loss of residential property or garden Requires verge hedgerow and tree belt	Does not require residential property or garden Requires mainly agricultural land

Table 4: Other comparators On – Off Road

6.21 Impacts could be mitigated by creating landscape and ecological mitigation areas balanced with preserving the existing open landscape. There is also an opportunity to enhance local landscape and integrate the new route with existing features.

6.22 The off road route could apply a “green lane” design treatment along its length to enhance biodiversity through the creation of habitats. This would include the planting of new trees and native species hedgerow along the route.

6.23 A stop at Coton could be considered as part of the CAM scheme.

Summary

6.24 The Strategic Case demonstrates a proposed off road segregated alignment for HQPT will provide significant transport benefits over bus priority on the existing highway and is consistent with the CPCA’s CAM proposal. While both options would have environmental impacts, the proposed specific route alignment has higher potential for mitigation measures and environmental enhancement. Hybrid Electric vehicles (Euro V1 or better) will address concerns regarding noise and air pollution.

6.25 Definition of the specific route alignment will require further environmental assessment in the form of an Environmental Impact Assessment (EIA) by which the anticipated or potential impacts on the environment of the emergent scheme would be assessed and measured. The appraisal towards the Final Outline Business Case requires further detailed assessment including further site surveys to identify the potential scope of these impacts in order to understand them and inform the design development for avoidance, mitigation and enhancement measures, reflecting public concerns, as outlined above.

- 6.26 This should continue to be considered, in parallel with development of the Phase 2 route alignments, for a final Executive Board decision in October 2019.

7 Specific Route Alignment (SRA)

- 7.1 Having established the economic and strategic business case for an off road option and considered the issues around delivery, further analysis and technical review of the off-road route and the SRA options has been undertaken.
- 7.2 The design approach and quality of new segregated HQPT infrastructure has and will continue to be informed by the principles agreed by the GCP Executive Board in October 2016 – namely:
- Location of public transport infrastructure – respecting the urban and rural context for example through assessing proximity to and the relationship with the existing built up areas.
 - Testing accessibility from the start to the end of journeys through the centres of employment (e.g. Cambridge West) and housing (e.g. Bourn Airfield) and the environmental effects with a view to integrating with existing infrastructure and minimising impacts.
 - Siting – positioning of infrastructure to minimise visual intrusion on the existing landscape through considering issues such as ground levels, slopes and other natural features and also minimising impact on important features such as ecological and heritage assets.
 - Design – the materials, features and introduced landscaping that will form the new infrastructure and achieve high quality design, minimising environmental impacts consistent with delivering the scheme’s objectives, and integration with existing infrastructure and the ends of the route and along it.
- 7.3 Extensive design and mitigation work would be undertaken as part of the emerging scheme development to avoid or minimise the impacts of the scheme and be subject to the full Environmental Impact Assessment as part of any process to seek planning consent and powers. The Arup review considered some options which will be evaluated as part of the final scheme design process.
- 7.4 In order to assess a Specific Route Alignment (SRA) for the off road option the area has been divided into 5 sequential sections to assist comparison as set out in **Figure 5**.

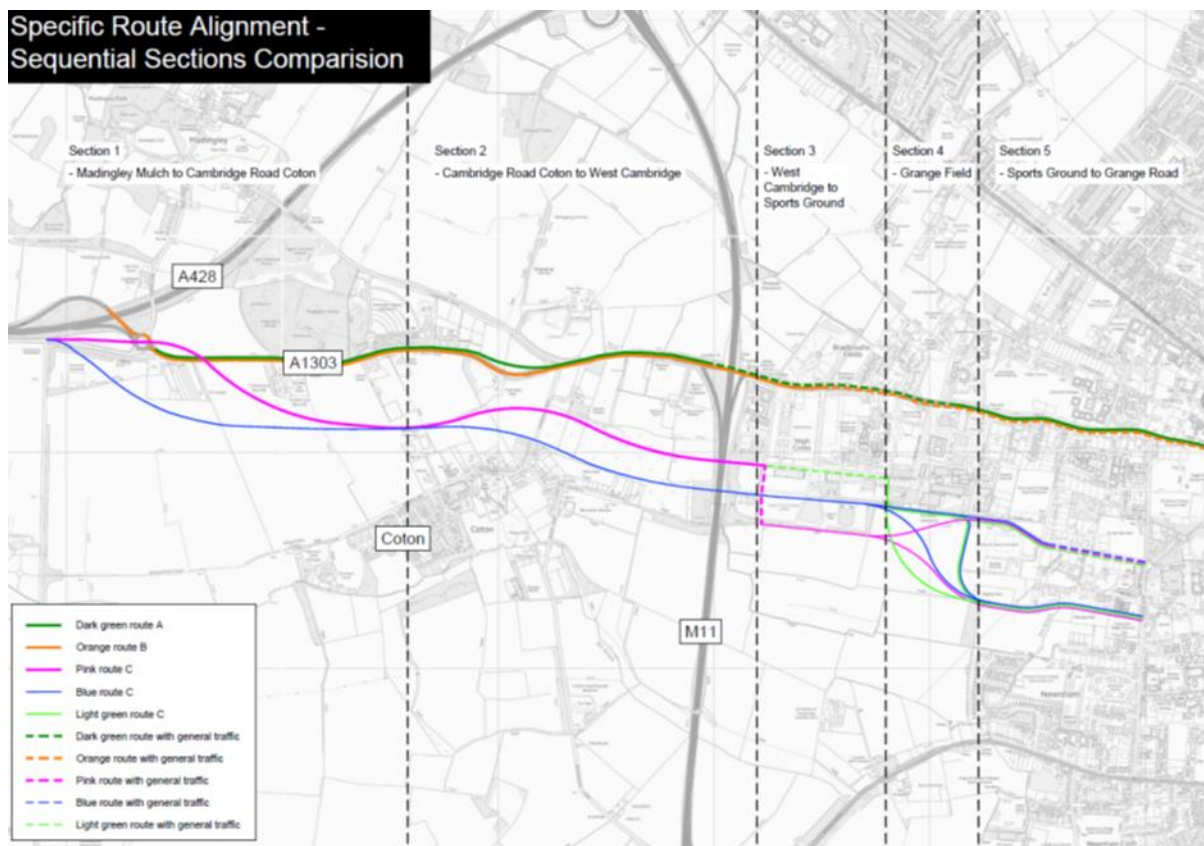


Figure 5 – SRA route assessment sections

7.5 The assessment outputs are set out in **Figures 6 to 10**

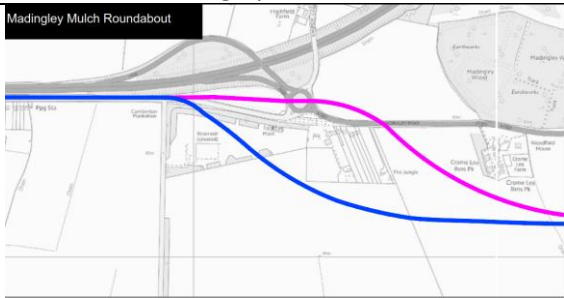
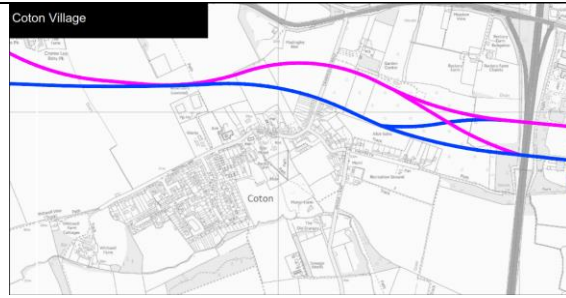
Section 1 – Madingley Hill	
 <p>Transport Issues</p> <ul style="list-style-type: none"> Blue route is less disruptive to public to build. Blue route is segregated from other traffic Provides improved pedestrian and cyclist facilities. Pink route is segregated but has interactions with other traffic at busy road junctions (including exit from A428 Trunk Road) 	<p>Environment Issues</p> <ul style="list-style-type: none"> Blue Route can be better incorporated within the existing landscape because it follows a lower, less prominent alignment Pink route less sympathetic to topography Pink closer to SSSI cemetery <p>Planning/Property Issues</p> <ul style="list-style-type: none"> LDA assess that the eastern section of the Pink Route may have moderate impact upon the Green Belt, as the steeper slope may require a degree of cut & fill Pink Route cuts across Chrome Lea field making it less viable for current agricultural use.

Figure 6 – Section 1 SRA considerations

Section 2 - Coton



Transport Issues

- Blue Route is better aligned for a more accessible potential future bus stop to serve Coton

Environment Issues

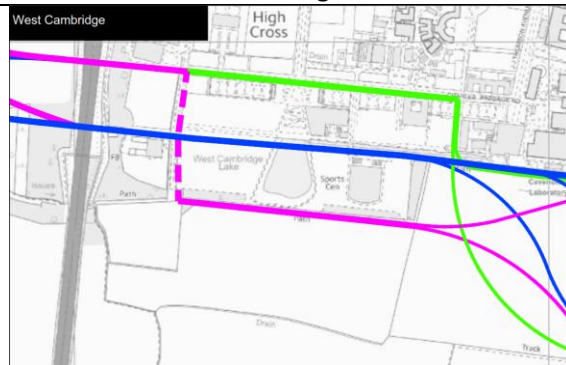
- Pink Route more visible from Coton Village and Red Meadow Hill as it is on higher ground even with mitigation
- Blue Route less visually intrusive as it can be encompassed within the field edge with landscaping.
- Pink route and bridge over the M11 is more visible from Rectory Farm and bisects City Wildlife site
- Any potential future bus stop on Pink Route at Coton would be more intrusive within the landscape

Planning/Property Issues

- Pink Route has greater impact on the orchard and juicing business on site.
- LDA assesses Pink Route more intrusive on Green Belt openness as further from the urban area

Figure 7 – Coton

Section 3 – West Cambridge



Transport Issues

- Blue Route would be fully segregated
- Segregated green route along Charles Babbage likely to have greater conflict with pedestrians and cyclists
- Pink route does not serve the campus
- Blue and Green Routes have good penetration of the West Cambridge development.

Environment Issues

- Blue Route has environmental (vibration etc.) impacts on "Titan" microscope (could be mitigated)
- Pink Route impacts most on the green belt
- Green route along Charles Babbage mitigates vibration impact concerns

Planning/Property Issues

- Blue and Green routes require high value development land from the University of Cambridge, and changes to the master plan.

Figure 8 – West Cambridge

- 8.2 Landscape character and quality were carefully considered as part of the SRA assessment. Particular attention was paid to the West fields, which forms an important and sensitive part of the Greenbelt around Cambridge as part of this Assessment. So far as possible, the route follows the boundaries of the established open field pattern and integrates with the former Rifle Range tarmac track leading to Grange Road. The SRA route from Grange Field to the former Rifle Range track is recommended as a suitable merger of both landscape and ecological considerations. We recognise the need to mitigate ecological impacts and enhance biodiversity whilst retaining land use and landscape character, so far as possible. The final exact alignment will need to be subjected to a detailed assessment as part of the EIA work, which would definitively assess the impact and potential benefit of mitigation options [shown as a dotted blue line on figure 11].
- 8.3 The SRA from Grange Field to the former Rifle Range track is required to attain consent to build and operate the proposed scheme (including integral cycle and walking provision) in its first year of opening of 2024. Further phased extension of the public transport network through the business case for CAM (anticipated SOBC from the CPCA due January 2019) would by means of a separate but complementary consent provide for tunnelled sections, which once in place would combine to provide even greater capacity and connectivity for Greater Cambridge residents, by public transport, walking or cycling.
- 8.4 This approach was endorsed by the independent review of the scheme by the Combined Authority subject to further work on the tunnel portal.

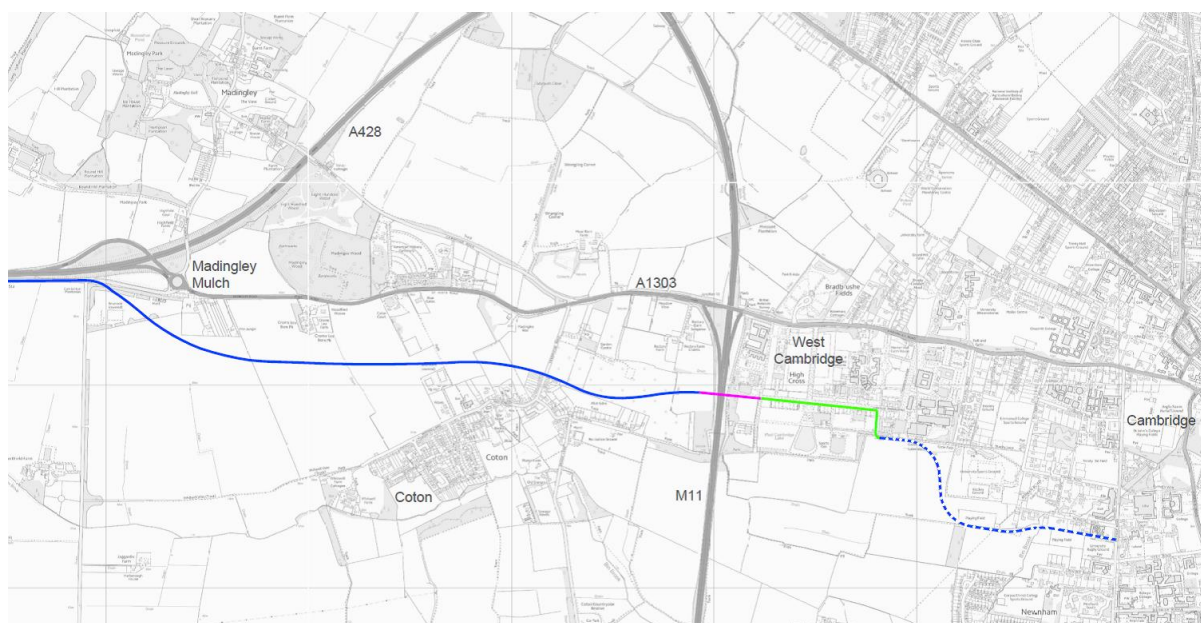


Figure 11 – Recommended Specific Route Alignment

9 Phase 2

- 9.1 There is planning policy requirement for new strategic high quality segregated public transport alignment through Bourn Airfield as part of any proposed new development of that site which is currently subject to a live planning application with the Local Planning Authority.
- 9.2 The Cambourne West development was approved in 2016. Cambourne West forms the western extent of the project and in partnership with Development Control officers in the

Local Planning Authorities, the project team have worked with the Cambourne West developer and local stakeholders to identify potential public transport improvements within Greater Cambourne to support current and future public transport services,

9.3 The catchment area identified for Phase 2 has been assessed as a new segregated public transport alignment. However, it may be feasible to deliver similar benefits using measures along the existing St Neots Road highway and as such, similar to Phase 1, a comparative assessment between on and off road options should be undertaken and offered for public consultation. This consultation would be based on 3 broad options and potential sub-option depending on further design. The broad options would be:

- A segregated HQTP route between Bourn Airfield roundabout and Madingley Mulch roundabout to the same or similar design specification as that proposed for Phase 1.
- On road bus priority measures including bus lanes and or gates in one or both directions along this section.
- A hybrid of both segregated and on road measures.

The range and type of interventions that could be considered for Phase 2 are summarised in Figure 12.

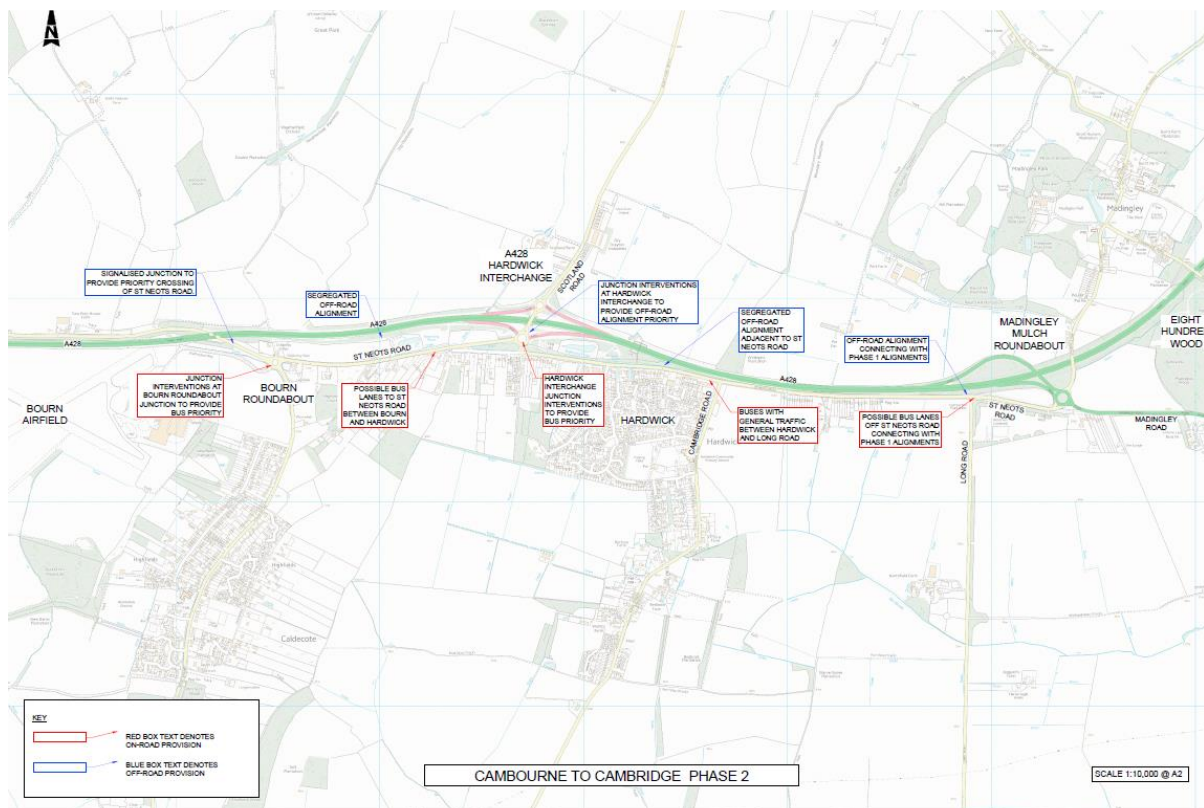


Figure 12 – Potential interventions Phase 2

- 9.4 A public consultation setting out options for Phase 2 is planned for February 2019. These options are summarised in Figures 13 to 15 below:

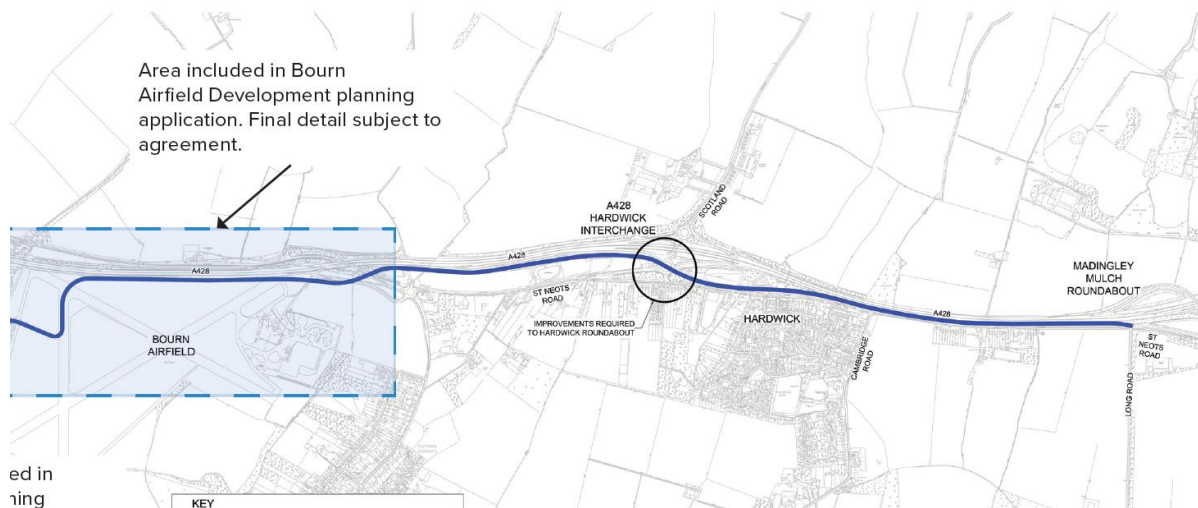


Figure 13 – Phase 2 Option 1 – Off Road Segregated Route from Bourn to Madingley Mulch

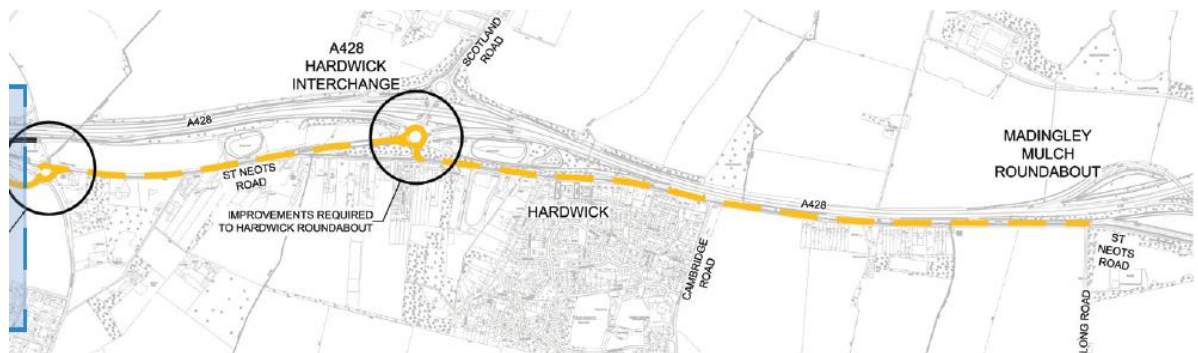


Figure 14 – Phase 2 Option 2 – Public Transport vehicles running with general traffic between Bourn and Madingley Mulch

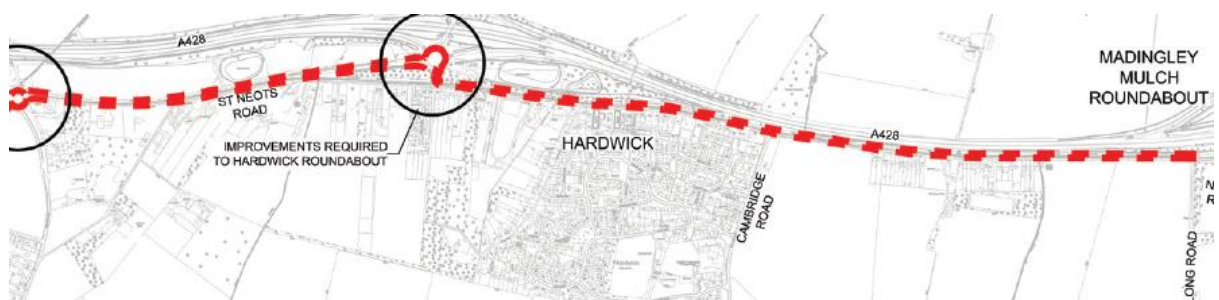


Figure 15 – Phase 2 Option 3 – Bus Lanes for Public transport vehicles between Bourn and Madingley Mulch

- 9.5 The response received from the Phase 2 public consultation, will assist the further technical assessment of the available options and will inform the Full Outline Business Case to the Board.

Park & Ride

- 9.6 The existing Park & Ride on Madingley Road, close to M11 Junction 13 as a stand-alone service been very successful, showing consistent growth in patronage. Surveys undertaken

for the SOBC suggest that the facility captures up to 45% of “in-scope” traffic passing the site. This indicates that the P & R service is attractive to car drivers because it provides a public transport option into Cambridge albeit from quite close in which is not the case with bus services that come from the Cambourne direction. The P & R service is however, reaching capacity and passengers are increasingly experiencing difficulties in accessing the site due to its location and existing congestion on Madingley Rise and the M11.

9.7 The work to date assessed 2 potential locations for a P&R sites. The public consultation set out a clear majority of respondents in favour of Scotland Farm.

9.8 There remain a number of strategic issues which require fuller understanding before a final location is recommended as part of the emerging scheme for detailed development. These are:

- The specific interventions on Phase 2 and in particular the access and egress arrangements from the sites including interaction with the existing road network for both general traffic, P&R users and public transport vehicles including a potential traffic calming of St Neots Road.
- The ongoing development of the CAM proposal and its integration with existing and new transport infrastructure.

9.9 On the basis of interdependency between the Phase 2 proposals and the P&R sites, it is considered that any final decision on the location of a Park & Ride should be made as part of the overall final defined scheme presented in the OBC.

10 Other Considerations

Madingley Road Cycling Improvements

10.1 As part of the public consultation the consultees suggested that there should be better walking and cycling provision along this section of the route therefore improved cycle provisions have been included as part of the post consultation do minimum option. This is also in line with the Local Transport Plan has a policy to improve cycling priority along Madingley Road.

10.2 The subsequent occupation of the Eddington site as well as potential expansion of the West Cambridge site also increase the case for complementary cycling improvements along Madingley Road, building on those already secured via the planning process.

10.3 As such, in the context of adherence to policy and as a response to the public consultation, it is proposed to develop a cycling project for Madingley Road and to develop proposals to improve the cycling network within the area. Officers will present a separate report on it to the Board for approval. Stakeholders proposed that any cycling and pedestrian improvements be entirely within the public highway with no third party land requirements. A series of concepts for further development are set out in **Figure 13**.

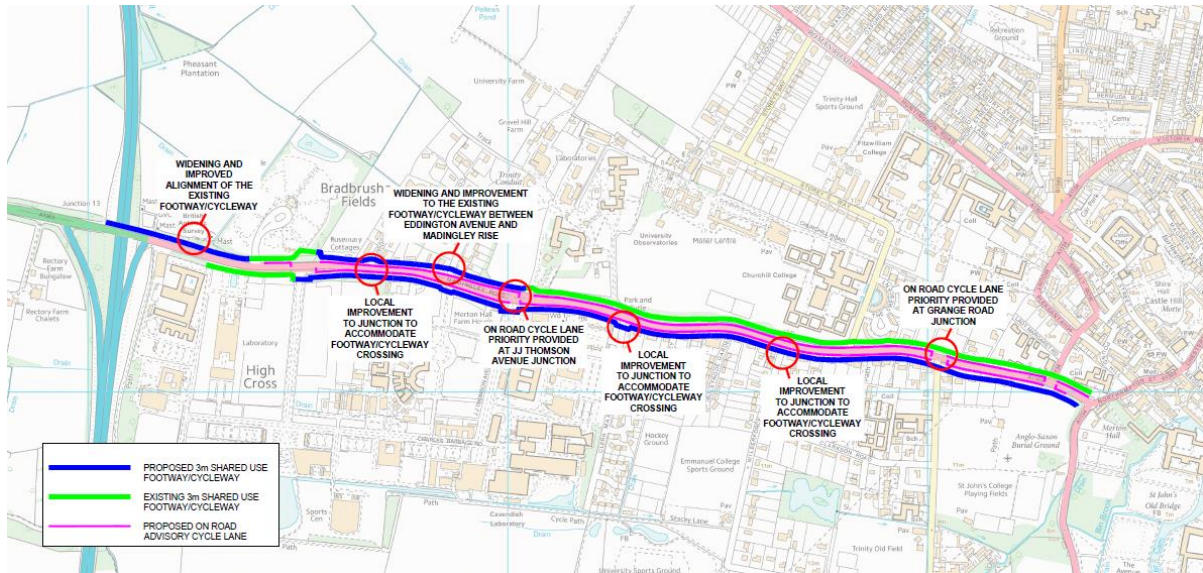


Figure 13: Concepts for cycling and pedestrian improvements along Madingley Road

11 Delivering a Scheme

Financial Case

- 11.1 Further refinement of option costs has been carried out since the SOBC and 2017 stage of project development. The current estimated capital cost of the current off-road option is £157.8m. The predicted costs and third party contributions are shown in Table 8 and builds upon the estimates previously provided for the Phase 1 works.
- 11.2 It should be noted that the financial case does not include Optimism Bias (currently 44%), which is used within the economic appraisal, but does include a risk allowance of 20%.

Cost Summary	SOBC Cost	Current estimate
Total Inc. Inflation	£141,700,000	£157,800,000
Developer Contributions	£0	£38,000,000
Net Total	£141,700,000	£119,800,000

Table 8: C2C Scheme Costs current vs SOBC

- 11.3 The estimated high level scheme costs at this stage of the project's development are based on a number of assumptions and exclusions, which are detailed within the technical assessment work reported under Appendix 1 (The Interim Report). As would be expected there are some differences to the costs that were presented in the SOBC and subsequent reports, there are multiple reasons for this which include the following:
- Level of detail of schemes – the options have been developed further enabling the costs to be further refined;
 - Option alignment work for Phase 2 (formally Option 3a) which has implications on costs; Optimised On Road (low cost comparator) which has a revised scope than previously costed;
 - Information and data – further information on utilities, land assembly has been obtained; and
 - Further indicative design work specifically related to the recommended option .

Funding

- 11.4 Funding for the project is intended to be sourced through the GCP and third party developer contributions through S106. City Deals provide a funding framework for central government and local partners to agree investment programmes, centred on the promotion of local economic growth and development. The total scheme costs for the scheme of £158m are deemed affordable based on successfully securing funding from the identified funding sources.
- 11.5 The estimated developer contributions shown above are dependent upon on-going assessments and negotiations and so are indicative at this stage. However, it is currently anticipated that between 20% and 25% of the scheme costs can be attributed to development.

Commercial Case

- 11.6 The Commercial element of the business case covers a range of commercial factors related to delivery of options. Examples are the issues associated with procurement, contractual risk etc. In the SOBC it was concluded that these commercial factors did not significantly differentiate between the options.
- 11.7 An initial procurement work stream has commenced for each option as currently defined there is a clear commercial strategy for the range of options currently under consideration. The procurement strategy will be influenced by further developments in options for example around vehicle guidance technology which would be further developed at the OBC stage in order to establish the applicable process for the application of powers and consents.
- 11.8 Operation and maintenance considerations also form part of the Commercial Case but at this stage do not offer a basis of differentiation between options.

Management Case

- 11.9 The Management section of the business case focuses on project delivery and management/ governance arrangements in place. The management case also considers the planning process and legal powers necessary to undertake to build a scheme.
- 11.10 Broadly, as stated in the SOBC, the management case does not differentiate in terms of the options under consideration. This is based on a review of previous projects delivered by GCP authorities such as Cambridgeshire County Council and lessons learnt.
- 11.11 The GCP includes a governance structure via the Executive Board and a standard approach to project management including a standard project control framework. A project management team exists with defined roles and responsibilities. A series of commercial contracts are in place with third party suppliers (designers, consultants, legal advisors etc.) which are managed by the project team. The GCP Assembly reviews projects at the strategic level prior to recommendations being presented to the Executive Board. An Assurance Framework exists between central Government and GCP in terms of project prioritisation and delivery.
- 11.12 The management case also identifies the key risks and mitigations for the project.

Public Consultation and Engagement

- 11.13 The management case reviews the process of public consultation and engagement. Public and stakeholder consultation is essential to ensure that the various aspirations of the general public and key stakeholders are taken into account throughout development and

delivery of the project and to manage the communication and flow of information relating to the project. A communication plan sets out how this process is managed, identifying key stakeholders and how engagement is managed including the facilitation of a project specific Local Liaison Forum.

- 11.14 There have been 2 major public consultations as part of project development to date and the details of this and how it has informed the option assessment process are set out further in Appendix 1.

12 Summary

- 12.1 This report updates on the ongoing development of the Business Case toward a recommended Option for the C2C project. The report has detailed the outcomes of the public consultation on developing options in 2017-18 and the technical assessment work carried out in the context of the '5 Cases' business case methodology.
- 12.2 The ongoing business case assessment reaffirms the findings of the previous stages, that there remains a strong strategic case to undertake a major transport infrastructure project from Cambourne to Cambridge based on both current and projected transport demand along the corridor, given the GCP objectives to promote sustainable economic growth and reduce congestion.
- 12.3 The report has also identified a recommended alignment for a rapid transit route for Phase 1 between Madingley Mulch Roundabout and Grange Road. The route alignment in Grange Fields and Grange Road will be temporary in nature to reflect the tunnelled sections of the CAM system circa 2029 and proposals will need to be designed to that effect.
- 12.4 Further assessment work and refinement is required and as such further business case development to the OBC will continue and be aligned with CAM.

13 Next Steps and Milestones

- 13.1 This report has updated the Joint Assembly on the ongoing development of the Business Case toward a recommended Option for the Cambourne to Cambridge Better Public Transport Project. The report has detailed the outcomes of the public consultation and stakeholder engagement on developing options in 2017-18 and the technical assessment work carried out in the context of the WebTAG '5 Cases' business case methodology.
- 13.2 The ongoing work for the project would include the following key elements as set out in Table 9 below, this includes a formal scheme consultation in 2019.
- 13.3 A report seeking a final decision on the scheme, including both Phase 1 and Phase 2 route alignments and the Park & Ride location will be brought to the Board in October 2019.

Task	Commentary	Timescale
CAM SOBC	Complete the SOBC evaluation	Jan 2019
Public Consultation	A public consultation on the options for Phase 2 including a P&R location.	Early 2019
OBC to Executive Board	The Board will be presented with the Full OBC for selection of a single option between Cambourne and Cambridge and P&R site.	October 2019
Prepare and submit application for statutory consent	The power to construct the scheme is likely to come from a Transport and Works Act Order which would be	Submit application Mid 2020 with a determination

	determined by the Secretary of State for Transport. This process is likely to include a Public Inquiry directed by an independent Inspector	period estimated of around 18 months – completed in late 2021
Seek authority to construct project	Following the completion of the statutory permissions stage, the Board will be presented with the Final Business Case for approval. This will trigger the construction of the project.	2021 depending on statutory powers process
Opening of the scheme to operational services	Planned opening	Planned for 2024

Table 9 – Indicative Programme

Agenda Item 7



CITY ACCESS AND BUS SERVICE IMPROVEMENTS UPDATE

Report to: Greater Cambridge Partnership Joint Assembly

15th November 2018

Lead officer: Peter Blake – GCP Director of Transport

1. Introduction and Purpose of this Paper

- 1.1 In June 2018, two papers were presented in parallel to the Board. The first presented an interim update on analysis to define a future world class public transport network for Cambridge, which this paper further develops. The second introduced options for demand management that might provide the necessary road space to deliver those improvements and, in some cases, provide a revenue stream to fund a significant enhancement of services or improvements to local infrastructure.
- 1.2 In the interim, complementary work has been underway to examine the need for a Clean Air Zone for Cambridge and to develop a Spaces & Movement Supplementary Planning Document (SPD) that seeks to secure the right balance of public space between pedestrians, cyclists and vehicles.
- 1.3 This paper updates the Assembly on these various workstreams with a focus on developing options for securing a step-change in public transport, reducing congestion and improving air quality in and around Cambridge. It sets out a vision and high-level specification for the future public transport network which will deliver a meaningful reduction in congestion by making public transport the mode of choice. It also considers the technical work undertaken since the last report to evidence the changes required to meet the City Deal traffic reduction target and considerably improve traffic and transportation in Greater Cambridge.
- 1.4 The Joint Assembly is asked to comment on the progress to date on the City Access programme and the proposal to hold an engagement exercise on options for demand management in early 2019.

2. City Access – Purpose, Vision and Objectives

- 2.1. The City Access project is designed to reduce congestion in the city centre, improve public transport, cycling and walking, and significantly improve air quality in Cambridge.
- 2.2. The strategy for achieving this includes the following elements:
 - Supporting the transition to sustainable transport (public transport, bike, foot) making travel easier especially for those coming in regularly from outside the city.
 - Making public transport vehicles significantly more reliable and attractive including the delivery of a segregated rapid transit system to avoid public transport queuing behind cars.
 - Developing cycling and walking as significantly more attractive options.
 - Reducing city centre and cross-city vehicular journeys by providing attractive alternatives.
 - Delivering enhancements to the public realm and city centre environment.
 - Providing better information to help travellers make more informed choices.
 - Potentially generating funds through pricing measures to deliver a step change in public transport provision.

2.3. Measures to monitor and track progress of the City Access project include:

- A reduction in car traffic (10-15 per cent reduction on the 2011 figure, equating to a reduction of some 24 per cent over today's levels).
- A shift to public and sustainable forms of transport, including an increase in cycling numbers.
- Reduction in journey times and improved frequency of public transport services to/from key locations.
- Enhanced air quality and emission volumes.
- Improved public realm.

3. Feedback from the first Big Conversation

3.1. Our Big Conversation analysis¹ shows that the GCP's strategic aims for improving transport are supported or strongly supported.

3.2. Feedback from this previous conversation is a driving rationale for the City Access focus on improving public transport and improving congestion. Asked to identify the biggest challenges in travelling in the Greater Cambridge area, respondents told us:

- Traffic and congestion slowing [their] journey (63 per cent City; 77 per cent South Cambridgeshire)
- Lack of public transport (36 per cent City; 62 per cent South Cambridgeshire)
- Safety of alternatives (41 per cent City; 26 per cent South Cambridgeshire)

3.3. Reliability is most frequently cited as the reason for the choice of travel mode (41 per cent). In addition, of those who do not use alternative modes, the top three reasons were due to: speed, reliability and price of public transport.

3.4. South Cambridgeshire residents (where public transport use is much lower than in the City) noted that more frequent and faster services, lower fares and more park and ride options were the most likely things to influence their mode of travel.

4. The scale of the challenge

Capacity and growth analysis

4.1. Greater Cambridge is a national economic success story, an important contributor to UK Plc and host to some of the most productive and innovative parts of the UK economy. The role of the Greater Cambridge Partnership (GCP) is to support the continued economic success of the Greater Cambridge area and to ensure that everyone in Greater Cambridge can access the opportunities offered by that growth.

4.2. In doing so, the GCP is working, and will continue to work, closely with the Mayor and Combined Authority of Cambridgeshire & Peterborough.

4.3. Congestion is a major problem and it threatens the liveability and attractiveness of Cambridge to residents, employees and visitors alike. Economic analysis published in the Cambridgeshire & Peterborough Independent Economic Review (CPIER) suggests that at current rates of transport infrastructure investment, the ability to deliver planned growth is threatened². This led the authors of the CPIER report to conclude that the Greater Cambridge area was the key investment priority in the short/medium term to deliver the region's growth aspirations. The GCP's business stakeholder engagement supports this observation.

¹ GCP Big Conversation: Summary Report of Survey findings, January 2018

² Recommendation #7, CPRI Final Report (p. 13, September 2018). Accessed online:
<http://www.cpier.org.uk/media/1669/cpier-report-140918-iii-na-highresdownload.pdf>

- 4.4. People are spending too much of their time in traffic jams; congestion has an impact on people's quality of life, on the local environment and on business productivity. Almost a quarter of people's commuting time in Cambridge is spent in traffic jams³. Since so little of the network is segregated for public transport this also affects bus users. Bus delays are significant. In the 2017 Big Conversation, Greater Cambridge residents told us that the reliability of journey times was one of the principal reasons for the mode they chose, and one of the most common reasons not to use alternative modes than car⁴.
- 4.5. The GCP has a target of 10 to 15 per cent reduction in city centre traffic flows over 2011 levels, as part of the city deal negotiations that resulted in the £500m devolution funding. Traffic has grown considerably since 2011, this target now equates to a reduction of some 24 per cent over today's levels or the equivalent to one in four cars off the road. Over the same period, employment is forecast to rise by 30 per cent. If all new workers adopted the same travel behaviours as today's workers, an additional 26,000 commuting trips would need to be accommodated on the road network (Appendix 1).
- 4.6. Most of this employment growth will be located outside of the city centre in areas that are not currently well served by public transport. For most residents west of the M11 or north of the A14, Addenbrooke's/ Cambridge Biomedical Campus (CBC) and other employment locations to the south are an impractically long public transport commute. There are some 30,000 new homes planned to the north and west of Cambridge, and around 20,000 new jobs at CBC, Babraham Research Campus and Granta Park.
- 4.7. Without intervention it is very likely that the majority of these 44,000 new employees will drive to work, which in the worst-case scenario could imply up to 44,000 additional cars on the road: a 50 per cent increase in car-based commuter traffic on current traffic volumes.

Air quality

- 4.8. At the same time, there is increasing concern about the impacts of air quality on health across Greater Cambridge. Air pollution is linked to cancer, asthma, stroke, heart disease, diabetes, obesity and dementia. The health problems resulting from exposure to air pollution have a high cost to people who suffer ill health and premature death. Emerging analysis commissioned to consider the case for a Clean Air Zone in Cambridge has estimated that around 50 deaths each year in Cambridge are attributable to poor air quality; around 5 per cent of all deaths. Poor air quality can also deter people from walking and cycling.
- 4.9. As well as these personal costs, poor air quality imposes additional costs on health services and to business. Nationally, the costs of polluted air are estimated at £20 billion every year. World Health Organisation guidelines, currently under review, are that there is no safe level for the effect of Particulate Matter (PM) emissions on human health.

Quality of place

- 4.10. Too often streets are designed for cars, not people. Much of the congestion in Cambridge can be attributed to the heavy reliance on private vehicles. Cambridge's city centre streets should be for active travel, social interaction, and space-efficient modes that enable the efficient movement of people to where they want or need to be. Relying on cars, particularly those carrying only one passenger, will only continue to make Cambridge's streets even more congested, undermining the quality of the beautiful, unique historic environment.

³ 2017 UNRIX International Traffic Scorecard. The Ranking analyses congestion in 1,360 cities worldwide using big datasets from connected cars and devices.

⁴ GCP Big Conversation: Summary Report of Survey findings, January 2018

- 4.11. A Supplementary Planning Document is under development which addresses the question of managing the urban environment of Cambridge and the relative priority of walking, cycling and motorised traffic. A public consultation is planned in 2019.

Social equity and inclusion

- 4.12. Some parts of Greater Cambridge are being held back by a lack of any viable public transport at all. In some places, people are cut off from opportunities that the rest of the city has to offer by poor public transport access or walk and cycle connections. Poor transport connections compromise economic fairness by limiting access to jobs, education and training. This in turn can isolate people and communities and lead to a less socially integrated city.

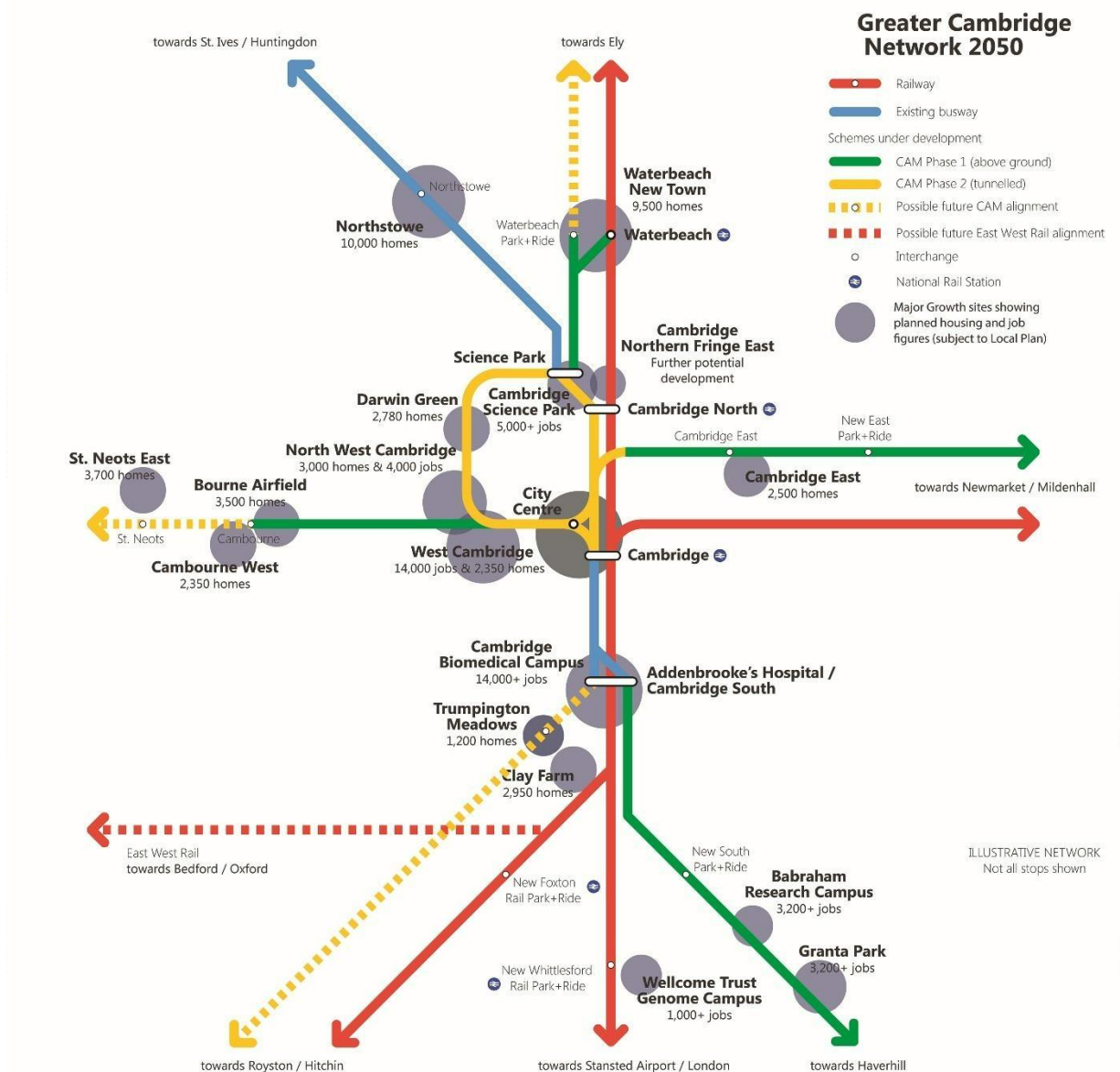
5. Delivering a world class public transport system

- 5.1. To achieve both journey time/congestion and air quality improvements, a step change in provision and uptake of public transport, cycling and walking is required, alongside a significant reduction in car use. High quality public transport services that connect seamlessly to other forms of active, efficient and sustainable travel are required across the city to provide alternatives to car use.
- 5.2. This means development of a world class transport system that makes it easy to get into, out of, and around Cambridge in ways that enhance the environment and retain the beauty of the City. It will require not only the provision of infrastructure and services, but complementary measures such as integrated ticketing, clear wayfinding and accessible information to ensure seamless and integrated journeys.
- 5.3. Our vision is for a public transport system that:
- offers a genuine alternative to the car;
 - is rapid, reliable and, where possible, segregated from cars;
 - is an integrated network of bus, rail and mass transit services, including timetable, ticketing and information;
 - focuses on better serving the key employment centres outside of the city centre: Cambridge Science Park, Cambridge Biomedical Campus, West Cambridge and the cluster around Cambridge Airport;
 - is both affordable and feasible to deliver and sustain.

Infrastructure investment: the backbone of the system

- 5.4. GCP is currently working jointly with the Mayor and Combined Authority of Cambridgeshire and Peterborough to develop proposals for a metro (rapid-transit) system for Cambridge, enabling fast, reliable and high-capacity services for large catchments of the City. The metro is designed as a concentric network, where lines travel in and out of the city core. The metro lines are proposed to operate over ground, until they meet the inner city, at which point they will need to go underground to maintain journey speeds.
- 5.5. The above-ground segregated elements will be faster and less expensive to deliver and, as such, are proposed for early delivery between 2023 and 2025. The full Cambridgeshire Area Metro (CAM) network delivery is still being programmed but not expected to be operational until the end of the decade.

Figure 1: Future mass transit network



- 5.6. These CAM Phase 1 schemes, segregated surface level routes, will deliver a significant improvement in public transport accessibility to the major out of centre employment sites that are currently very poorly served. They will also offer the ability for those commuting from further afield to park and continue their journey in on rapid public transport, or in future to get an on demand autonomous vehicle to the station or transport interchange.

Transformed services to support new infrastructure

- 5.7. The public and sustainable transport network of the future needs to look and feel different so that it is genuinely attractive. The fundamental building block of this is getting journey times and frequencies right. At the moment, for too many people, making a journey by car is the rational choice for them to make. Their car is either faster (on a good day), cheaper (in terms of the out of pocket costs for a single journey), or both. For some people, parking is free and relatively easy. Set against this, public transport can often take longer, and be less comfortable. Some find it confusing and frustrating. Cycling and walking is too often an unsafe, inconvenient or unpleasant experience. When all of this is weighed up, it is not surprising that the majority of commuters choose to travel by car. For individuals this is an understandable decision but the collective impact of those decisions is bad for everyone and the position is untenable.

- 5.8. To convince people to move away from their cars there must be a step-change improvement of the performance of alternative modes on paper (in terms of journey time and financial costs) but also in terms of the user experience. Getting the offer right means a virtuous cycle where more people are attracted to public transport, walking and cycling, taking car traffic off the road which in turn makes space for public transport to run more freely, and delivers an increase in revenue available to support investment in services. At the moment the reverse is happening: public transport services are not performing and so more people are driving, causing congestion that further undermines public transport services.
- 5.9. This requires the GCP to proactively intervene, with both incentives and disincentives including:
- Significant improvements to service frequency and journey speeds on public transport: targeted at the most important travel to work flows now and in future and at the park and ride sites.
 - Better out of hours services – including through trialling autonomous vehicles on the Guided Busway – to serve those working irregular hours.
 - An improvement in the look and feel of the network: providing integrated information on public transport; delivering integrated ticketing; improving real time information; upgrading the quality of experience; and introducing a clean, green public transport vehicle fleet.
 - Improvements to cycling infrastructure in terms of safety and user experience, with segregation wherever possible.
 - Reprioritising public space to make walking safer, easier and more pleasant way to get around.
 - A safe, comfortable and productive way of travelling: for example provision of Wi-Fi on public transport and comfortable safe waiting spaces with integrated services such as parcel collection to make life easier for all residents.
 - Providing feeder and last mile provision at key transport interchanges for example around campus employment sites and in the city centre, including linking residents from around Cambridgeshire into the CAM network and travel hubs. This means considering secure cycle parking, cycle sharing and safe walking routes to and from public transport services and potentially autonomous vehicles at campus sites.
 - Integrating this provision into future planned development, minimising the need to use cars wherever possible.

Priorities for service improvements

- 5.10. Public transport competitiveness analysis demonstrates that early delivery of the above-ground elements of CAM will deliver a step change in the attractiveness of public transport for important commuter flows through significantly improved public transport infrastructure.
- 5.11. However, cross city movements are important, particularly in the context of planned growth patterns. Early delivery of the CAM Phase 1 will not be able to make a significant improvement here, so solutions will need to be developed to improve the speed and reliability cross city travel. There are also important housing and employment locations that the CAM network will not directly serve. CAM and rail will be a core of the future transport network but they will always need to be supported by conventional bus and other feeder services, as well as cycling and walking, to ensure that most commuters have a genuinely faster and cheaper journey by public transport than car.
- 5.12. Competitiveness analysis has been used to define and prioritise a package of public transport service improvements – evidencing what changes are required to make public transport more attractive than the private car – see Appendix 2. This package is likely to deliver the greatest potential impact in supporting mode shift in commuter travel. The package would include a mixture of service frequency enhancements, journey time improvements and targeted fare reductions. This information will be fed into the Bus Services Review currently under deliberation by the Cambridgeshire & Peterborough Combined Authority and detailed proposals developed.

- 5.13. This targeted package can include, for example enhanced services to the Cambridge Biomedical Campus site:
- **Haverhill to CBC:** increased service frequency from a bus every 15-20 minutes to a bus every 10-15 minutes, improving journey time from 45-60 minutes to less than 30 minutes.
 - **Great Shelford to CBC:** Services at least every 15 minutes, and travel times less than 15 minutes.
 - **East Cambridge to CBC:** Service frequencies of at least 15 minutes, with travel times improving from 30-45 minutes to less than 30 minutes.
 - **Cherry Hinton to CBC:** Increased frequency from a service every 15-20 minutes to one every 10-15 minutes, and travel times less than 15 minutes.
 - **Royston to CBC:** Increased frequencies from a service every 30 minutes or more to a service every 15-20 minutes, and improved travel times from 15-30 minutes to less than 15 minutes.
 - **Cambourne to CBC:** Increased frequencies from a service every 30 minutes or more to one every 15-20 minutes, and improved travel times from 30-45 minutes to less than 30 minutes.
- 5.14. The public transport network defined above and in Appendix 3 will in principle mean that at least 15,000 commuters could go from a situation where car is their most rational option to one where public transport is better. Services will be substantially improved and journeys will be made easier.
- 5.15. Someone traveling shorter distances to work, such as Waterbeach to the Cambridge Biomedical Campus (approximately 7.5 - 10 miles), would be able to get to work in under 25 minutes; a significant reduction from their journey time today which can take up to 1 hour 15 minutes and require a change. There are 14,000 new jobs planned at CBC and several thousand more along the science park cluster to the south of CBC.
- 5.16. West Cambridge, where 14,000 planned new jobs are planned, could be served by outstanding public transport. Someone traveling longer distances such as from Haverhill, approximately 25 miles, would have the benefit of turn up and go services between 7:30-8:30am and a maximum total journey time of up to 50 minutes; more than halving today's actual travel times.
- 5.17. The future services are designed to significantly improve public transport journey times between out of centre locations. Despite only being around 10 miles apart, people living in Cambourne today working in Cambridge Science Park, would take between 80-110 minutes to get to work leaving at 8am using today's public transport network. The future services described above would enable them to get to work in under 30 minutes by public transport which would be a more competitive option than by car.
- 5.18. This paper is focused on public transport investment but significant improvements to cycling infrastructure across Greater Cambridge are also required. Work will continue to bring forward a programme of investment in cycling and walking.

Deliverability: funding and road space

- 5.19. The provision of viable, attractive public transport should significantly improve ridership and, as a result, revenues should also increase. However, most cities are not able to support a fully self-supporting bus network. London's bus network, which has very high ridership, runs at a net annual operating deficit of £668m and is therefore cross-subsidised by income from other sources. In Greater Cambridge the estimated revenue cost of an enhanced public transport network is £20m per annum. In the medium term, a source of funding will need to be identified and with increasing pressure on local government finances it is likely that this source will need to be from within transport.

- 5.20. Delivery of a world class public transport system involves a likely doubling of public transport capacity by 2031⁵. There will be scope to rationalise and make more efficient use of buses and road space but there will also need to be substantial additional vehicles on the roads in particular cleaner, electric vehicles.
- 5.21. The journey times set out above cannot be achieved in today's city centre traffic and in much of the city centre there is not the physical space to provide full segregation with car traffic levels as they are. To deliver those improvements we will need to make more space for public transport in the city centre, by reducing the number of cars on the road.
- 5.22. The Strategic Outline Business Case for CAM is being developed and will give more detail on the optimal layout of the city centre network, but even with the delivery of a tunnelled central section (estimated at 2029), it will always be the case that more of the city centre's road space must be directed towards cycling, walking and public transport.
- 5.23. The next section considers options to deliver that reallocation of road space and revenue support through a range of demand management approaches.
- 5.24. Alongside this, it is proposed to consider other sources of funding to ensure all options are explored.

Demand management options

- 5.25. Managing the demand for car travel is an important component in any transport network focused on sustainable modes. To meet the target of 24 per cent reduction in car traffic by 2031, there needs to be more than simply the provision of services and investment in infrastructure (supply). There must be efforts made to manage demand itself.
- 5.26. Demand management can be based on physical measures (such as access or parking restrictions) or price-based measures (for example parking charges or road pricing). All offer a means of reducing the number of vehicles, and could have several important consequences for Cambridge:
- Reduced congestion in the city centre and around major employment centres, leading to improved reliability, competitiveness and viability of public transport; more road space for public transport, cycling and pedestrians; and improved air quality.
 - A potential source of revenues that could be ringfenced for public transport service or infrastructure improvements, including the costs of maintaining highway assets. These improvements would further attract people away from car travel, creating a virtuous cycle.
- 5.27. In any scenario it is envisaged that a baseline package of measures would be implemented that would include the measures listed in Box 1, below. These measures will contribute to demand reduction targets but are very unlikely to be able to achieve them alone. However, none of these interventions are expected to be able to reduce demand to manageable levels either individually or collectively or raise the funds to pay for new, enhanced public transport services.

⁵ Based on a 'policy on' scenario in 2031 where public transport is the future mode of choice for all, including all additional new commuters associated with 44,000 new jobs in Greater Cambridge.

Box 1: Baseline demand management interventions

- Investment in delivering the world class public transport system outlined in Section 4 above, to make sustainable travel more attractive and convenient.
- Targeted on-street parking restrictions (such as residents parking zones)
- Working with employers to reduce the amount of workspace car parking offered, with incentives to transfer workplace parking to more economically productive uses.
- Some element of physical restrictions and road space reallocations in the city centre to discourage through traffic and increase space available for public transport, cycling and walking (the Spaces & Movement SPD is underway and will report in Spring 2019 with specific recommendations).
- Traffic signal optimisation to prioritise bus, cycle and pedestrian movements across the network to reduce delays and improve flow.

- 5.28. Road space prioritisation – reducing the amount of road space allocated to private vehicles and instead prioritising for public transport and active modes of transport – could help to manage demand in the city centre. The benefit is that by in effect prioritising traffic types, it enhances the reliability of public transport, in turn enhancing its attractiveness as a mode; and instead shifting more of the burden of congestion and travel delays to general traffic. Road space allocation can be in the form of specific modes, in specific lanes, for a minimum number of passengers per vehicle or prioritised in terms of time of day. Physical demand management measures can also counteract a ‘creep back’ of car traffic and have been used to good effect in London with large scale reallocations of road space to bus and cycle priority following the introduction of the Congestion Charge.
- 5.29. Traffic modelling carried out to test the impact of strategic road closures in the city centre suggest that more traffic will re-route around the centre than switch to sustainable modes – traffic displacement rather than traffic reduction. This may be part of the solution to allow reallocated road space and improved public realm but is unlikely to be sufficient alone to meet traffic reduction targets.
- 5.30. Another option is price-based demand management. Preliminary analysis has been carried out to understand the likely impact of price-based measures in terms of congestion reduction, mode shift and revenue generating potential. These measures are:
- Off street parking charges
 - A Workplace Parking Levy
 - Pollution charging (in parallel with developing proposals for a Clean Air Zone being led by the City of Cambridge in partnership with the GCP)
 - Intelligent charging (which might be specified in several different ways).
- 5.31. Preliminary economic modelling of charging impacts on traffic suggest that various options have the potential to deliver the target traffic reduction of 24 per cent over current levels. Competitiveness analysis suggests that the combination of CAM Phase 1, transformed bus services and demand management would make public transport the best option for around 45,000 current commuters (which represents 85% of the most important commuter routes). New residents of Cambourne, Northstowe, North West Cambridge, Waterbeach, East Cambridge and Trumpington working in Cambridge Science Park, CBC, West Cambridge or the City Centre would all have, competitive public transport commuting options (Appendix 4).
- 5.32. Charging, depending on how it is set up, could generate between £40m and £60m annual net revenue. This revenue stream offers significant potential to support public transport service improvement costs. Further detailed work would need to be undertaken to establish firm predictions of net revenue. Nevertheless, this is substantially more than the £20m estimated investment in public transport delivery, raising the potential to make further investments in transport infrastructure such as feeder services to

allow residents outside of the city to access CAM, lower fares, significant improvements in road and cycleway maintenance, or leverage to fund investment in public transport infrastructure.

- 5.33. A summary of the pros and cons of various physical and pricing demand management options is contained in Appendix 5.

6. Other Funding Sources

- 6.1. Other sources of funding could be explored to deliver the revenue required to support a significant enhancement in public transport provision. This could include wider tax or levy options. Whilst providing revenue, such sources would not deliver a reduction in road use and other measures would be required to free up road space for public transport services.

7. Equity and Equality

- 7.1. Although the scheme options are at an early stage, elements including pricing will clearly have differential impacts depending on individuals' specific circumstances, including income. Likewise, the quality (or otherwise) of public transport provision can have profoundly differential impacts on different groups of people.⁶ It is important that any more detailed work on potential measures clearly identify impacts, both positive and negative, of these measures on different groups of people and makes explicit the likely equalities impact of any measures introduced. The equity implications will be one of the key criterion by which options are assessed and compared. There may be options for mitigating any negative equalities impacts and we would want to explore these as part of the engagement activity we are recommending in this paper.
- 7.2. Consistency and fairness for those living outside the city boundary, compared with those living within the city is important. ANPR data suggests that around 50 per cent of all recorded trips in Cambridge start and end within Cambridge.⁷ This is a principle we would want to test through the recommended public engagement.
- 7.3. The Public Sector Equalities Duty places a requirement on the public sector to actively promote equality for groups sharing characteristics protected under law as well as to avoid increasing inequality or discrimination faced by people with those characteristics. Protected characteristics under the Equalities Act 2010 are: age; sex; gender identity; race; religion; sexual orientation; marital status; pregnancy & maternity; and disability. In addition to those characteristics protected by law it is good practice to consider disproportionate impacts on those with low incomes.
- 7.4. A preliminary Equalities Screening Assessment has been carried out and will be updated as technical work progresses on any or all options for demand management. The recommended public engagement event would seek public and stakeholder comment on the equality and equity implications of different options.

⁷ Eliasson, J Centre for Transport Studies Stockholm. *Is Congestion Pricing Fair?* 2016

⁸ Cambridge ANPR survey report, Oct 2017

Table 1: Preliminary equalities screening of City Access public transport and demand management strategy

Protected characteristic / target group	Preliminary impact screening
Age	<ul style="list-style-type: none"> Both young and old people are less likely to own and drive cars, and more likely to be reliant on public transport. Measures that provide a revenue stream to support better public transport services and/or facilitate the reallocation of road space that improves public transport or walking/cycling provision are likely to positively promote equality for the young and old. The negative health impacts arising from air pollution due to vehicle emissions are disproportionately damaging for children and older people.
Sex	<ul style="list-style-type: none"> No anticipated equalities impact of demand management mechanisms.
Gender identity	<ul style="list-style-type: none"> No anticipated equalities impact of demand management mechanisms.
Race	<ul style="list-style-type: none"> No anticipated equalities impact of demand management mechanisms.
Religion	<ul style="list-style-type: none"> No anticipated equalities impact of demand management mechanisms.
Sexual orientation	<ul style="list-style-type: none"> No anticipated equalities impact of demand management mechanisms.
Marital status	<ul style="list-style-type: none"> No anticipated equalities impact of demand management mechanisms.
Pregnancy & maternity	<ul style="list-style-type: none"> Potential for both minor positive and minor negative impacts. People travelling babies are more likely to be encumbered when travelling and may prefer to use a car where possible. For those without access to a car, more and better public transport is likely to make use of public transport with a small baby easier and more accessible.
Disability	<ul style="list-style-type: none"> Likely to have mixed impacts. It is assumed that blue badge holders will be exempt from road pricing mechanisms which minimises the scope for negative equalities impacts. Physical demand management may have negative equalities impacts if disabled people are prevented from using cars to access parts of the city. Those with disabilities that do not qualify for a blue badge (for example, those with autism) may nevertheless find use of public transport challenging. Measures that increase the cost or difficulty of car use for these groups may have adverse equalities impacts. On the other hand, for those disabled people that are reliant on public transport (including but not limited to those with visual impairments) demand management measures that improve public transport have the potential to positively promote equality.
Low income	<ul style="list-style-type: none"> Likely to have mixed impacts. In many places there is a link between deprivation and exposure to poor air quality. This can be masked when looking at formal deprivation data which looks at neighbourhood level because, in general, pollution levels are worse along main roads and in many neighbourhoods, this will be where the cheapest housing is located. Nationally, the poorest groups in society are much less likely to have access to a car and much more likely to be solely reliant on public transport or to make more PT journeys. Demand management measures that improve the provision of high quality public transport therefore have the potential for positive equalities impacts. Air quality measures can have a greater impact upon people with older cars Shift workers and commuters travelling outside of normal hours can be more heavily reliant upon the private car given limited public transport options.

8. Phasing and implementation

8.1. Phasing will be a critical element of any package development. A substantial and sustained improvements in public transport, walking & cycling travel alternatives is required as a precursor to implementation of other City Access measures.

9. Vision and principles of a Second Big Conversation

- 9.1. Experience from the first Big Conversation demonstrates that congestion is a major issue facing those who live, work and travel in Greater Cambridge. To better understand the impact of different options for tackling this, and to give local people the opportunity to engage in the early stage of thinking, it is proposed to undertake a second, similar phase of public engagement.
- 9.2. The second Big Conversation would have a dual focus – to better understand the potential impacts of public transport service improvements, and of different options for tackling congestion and managing demand for road space. It would set out the planned public transport improvements, the offer to different groups of people including those who currently rely on the car, and seek feedback on funding options and priorities, and how different options around services (e.g. frequency and pricing) would support modal shift. It would also show how, by themselves, these improvements are unlikely to be enough to create the journey-time and cost improvements that support modal shift, and seek views on how we could reduce congestion and use different demand management techniques to free up road space and potentially fund a better public transport system.
- 9.3. The conversation could also explore the public appetite for examining other sources of funding for improvements to local public transport services including council tax or business levy.
- 9.4. At this stage the conversation would be about the principles of how we manage demand rather than consulting on the specifics of any scheme. At the same time, it will be important to bring to life the public transport offer and choices, as well as how any demand management system could work. This would be an opportunity to engage people living in, working in and visiting Cambridge on how best to tackle the issues set out in this paper. As well as exploring practical, equality and financial impacts the conversation would also look at well-being and quality of life impacts, including air quality.
- 9.5. It will be important to obtain robust feedback to support future decisions. In particular, given the potential equality impacts, we need to ensure that we hear from harder-to-reach groups. As well as offering the opportunity to attend events and fill out a survey to all who are interested, we envisage that the conversation will include an independent survey covering a representative sample of people.
- 9.6. One option for exploring a cross section of views would be to ask an independent body to run a citizens' assembly. These typically involve around 100 participants, selected so as to be representative of the impacted groups, who meet to understand the evidence and discuss and propose a solution. They are advisory in nature, offering the opportunity to understand the issues in greater detail.
- 9.7. In addition, specific business engagement events and meeting organisations with particular needs, for example the police and ambulance service would be included. The conversation should engage the whole travel area, not just the area covered by the GCP, and we will be looking at how best to achieve this – e.g. by advertising the survey more widely, and by running events outside the area.
- 9.8. Appendix 6 contains preliminary examples of the questions we would ask as part of the conversation. These would be refined following any decision to proceed with the engagement, including an independent QA.

10. Summary and recommendations

- 10.1. This paper seeks to provide greater shape and definition to the vision, principles and definition of a world class public transport system for Greater Cambridge. It is predicated on providing fast, reliable public transport routes into and through the city, prioritising commuter traffic for mode shift and supporting the public transport system with world class cycling and walking facilities. This will improve quality of life for residents and employees, support Cambridge's continued economic success and improve air quality and thereby health outcomes in the City.

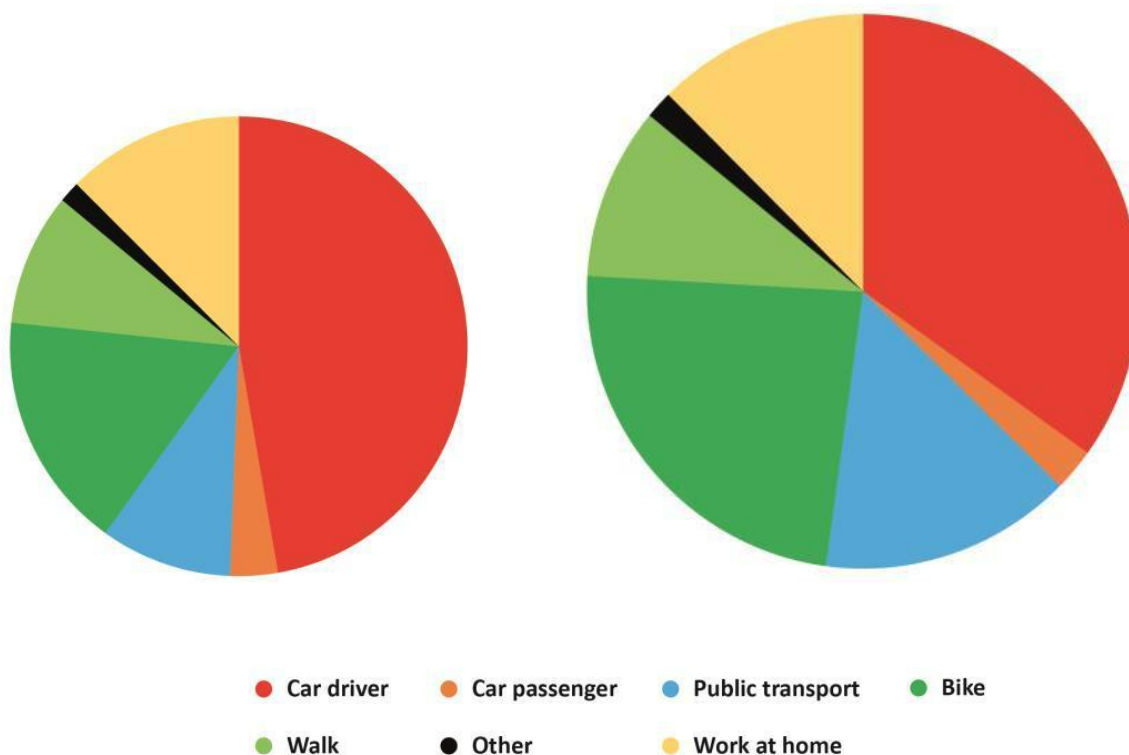
- 10.2. This public transport system will require both infrastructure investment and service improvement. To deliver a truly world class system is likely to require significant ongoing subsidy as well as increased road space and priority. The paper further sets out the range of options for achieving this through physical and price based demand management mechanisms.
- 10.3. The Joint Assembly is asked to note and comment on the contents of this paper.

Appendix 1: Implications of growth for public transport, walking and cycling

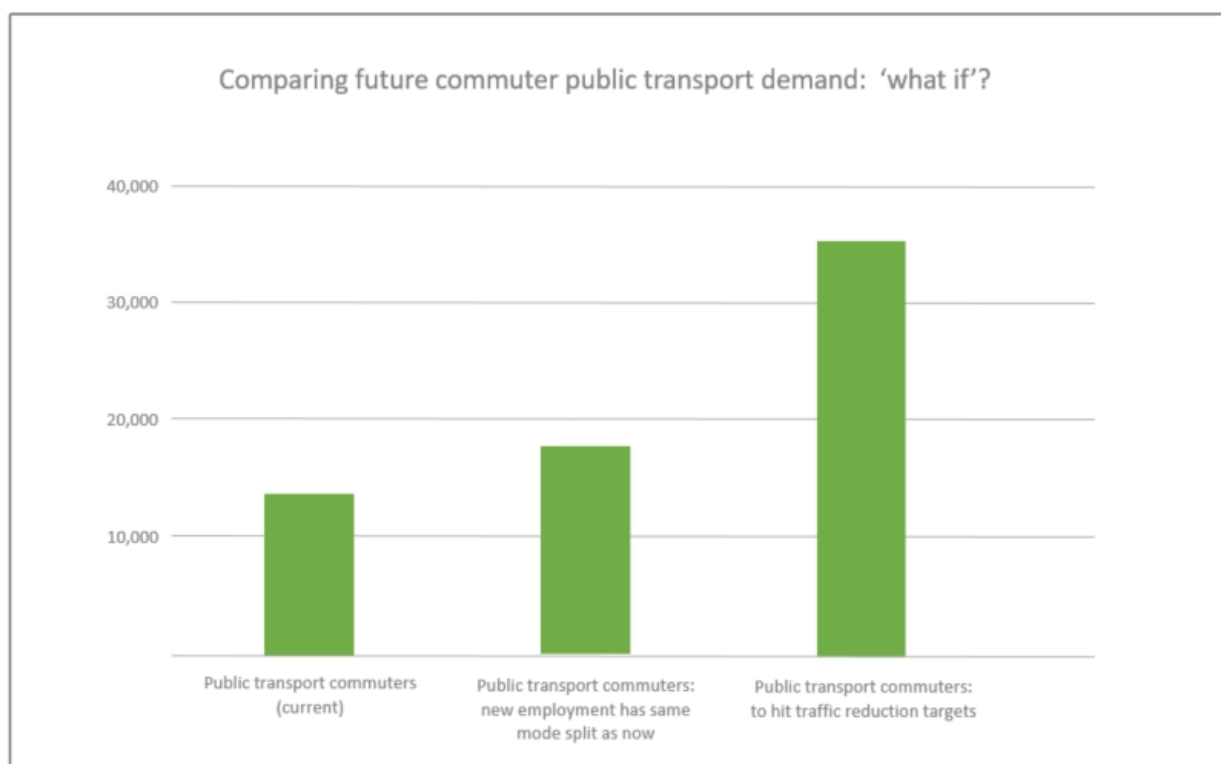
A significant growth in walking, cycling and public transport is required as Greater Cambridge continues to grow:

2011: 88,000 jobs in Greater Cambridge

2031: 132,000 jobs in Greater Cambridge



Analysis of public transport demand in different scenarios:



Appendix 2: Public transport competitiveness analysis for key employment locations

Generalised cost analysis has been undertaken for key commuter routes in Greater Cambridge. This can then be used to test whether current routes offer a competitive public transport option compared to the private car, and the impact of different interventions on that competitiveness.

The values presented here are ratios expressing the relative difference between generalised cost by public transport and generalised cost by private car. Positive values denote that public transport has a higher generalised cost (private car is a more attractive option than public transport); negative values denote that public transport has a lower generalised cost (public transport is a more attractive option than private car).

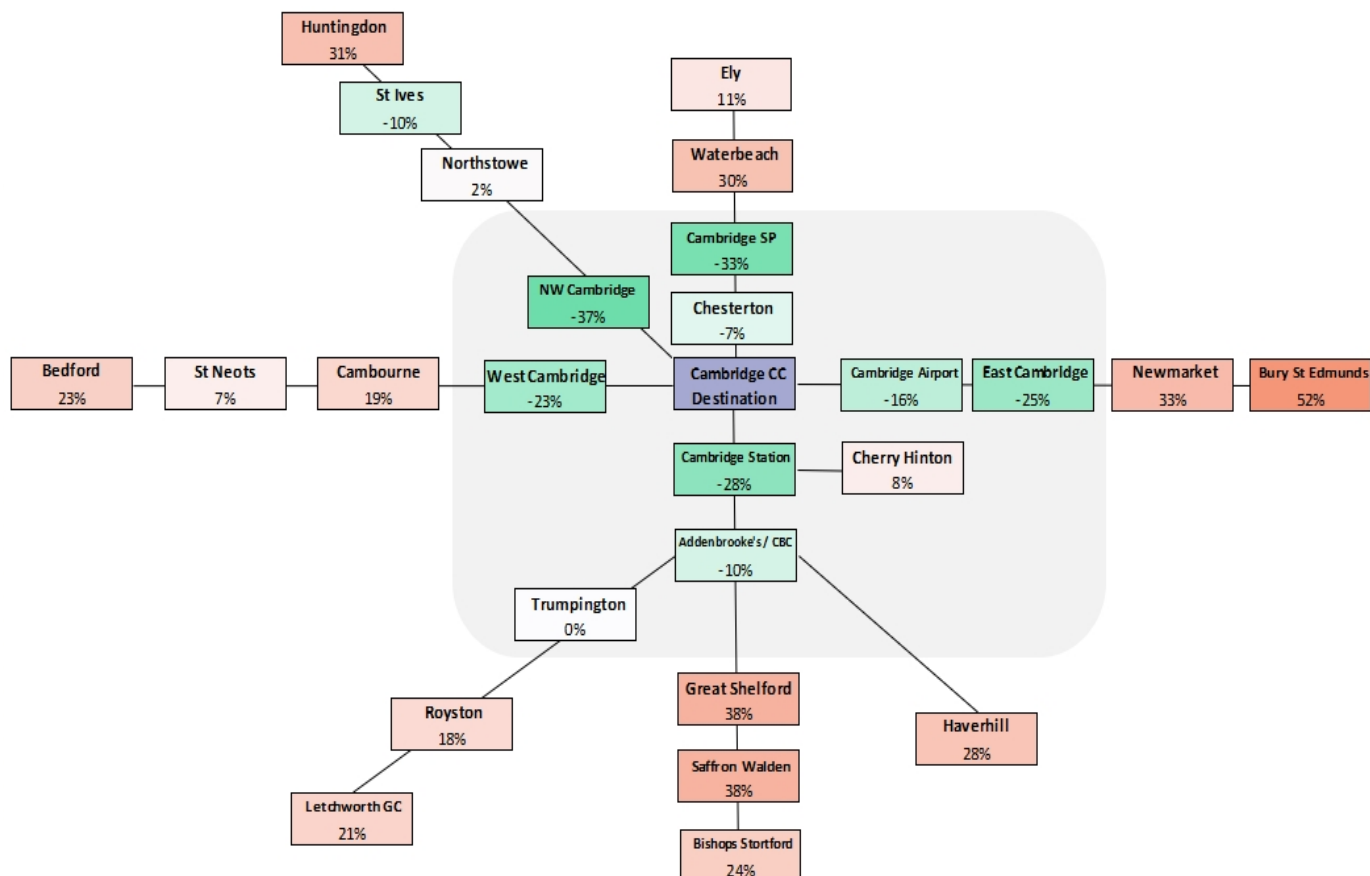
Competitiveness analysis has been undertaken for key employment locations in four scenarios:

- Now – the current situation
- With GCP public transport routes
- With GCP public transport routes and public transport service improvements
- With GCP routes, service improvements and demand management changes

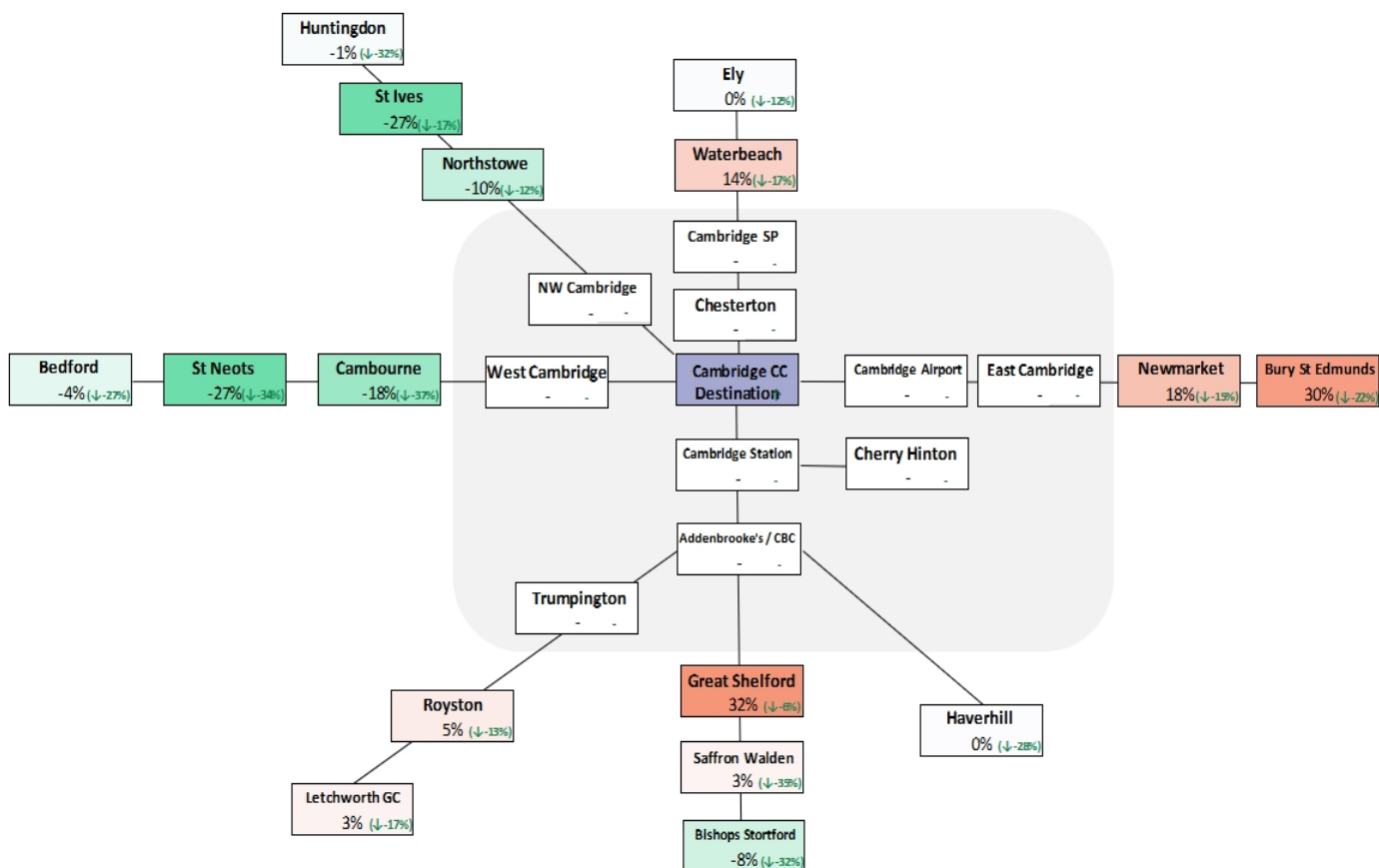
The results are set out below.

A: City Centre

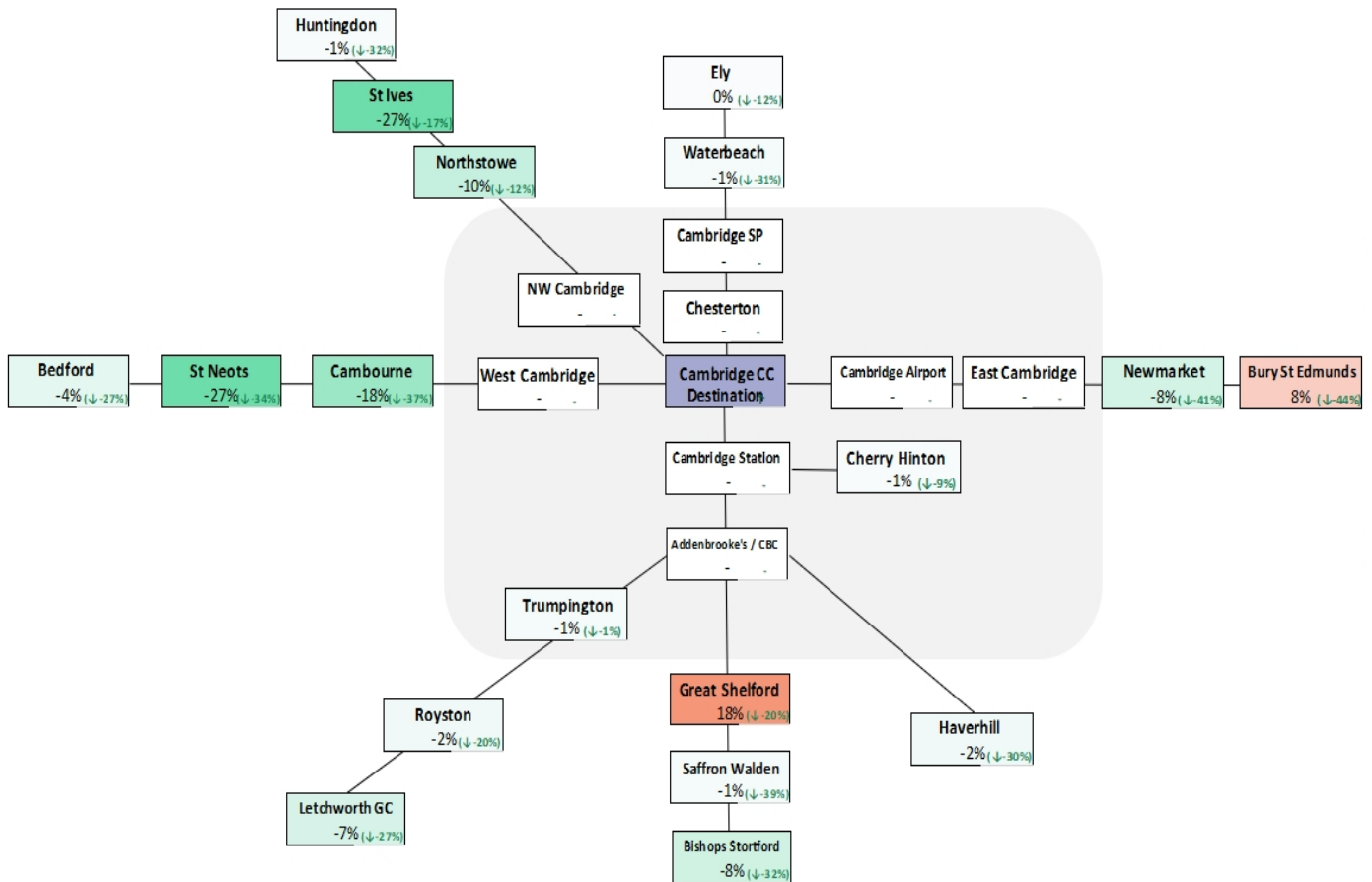
Now



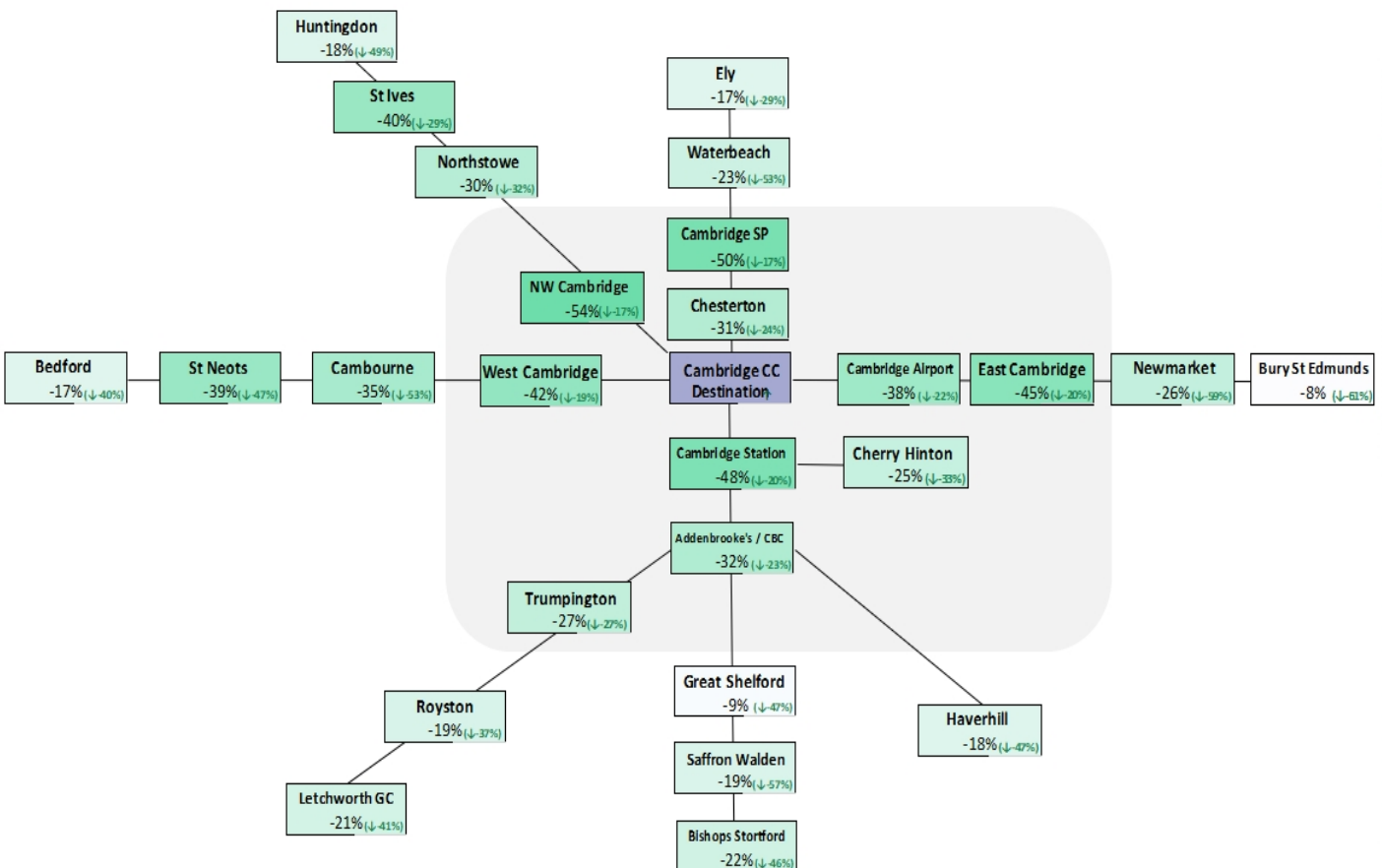
With GCP public transport routes



With GCP public transport routes and public transport service improvements

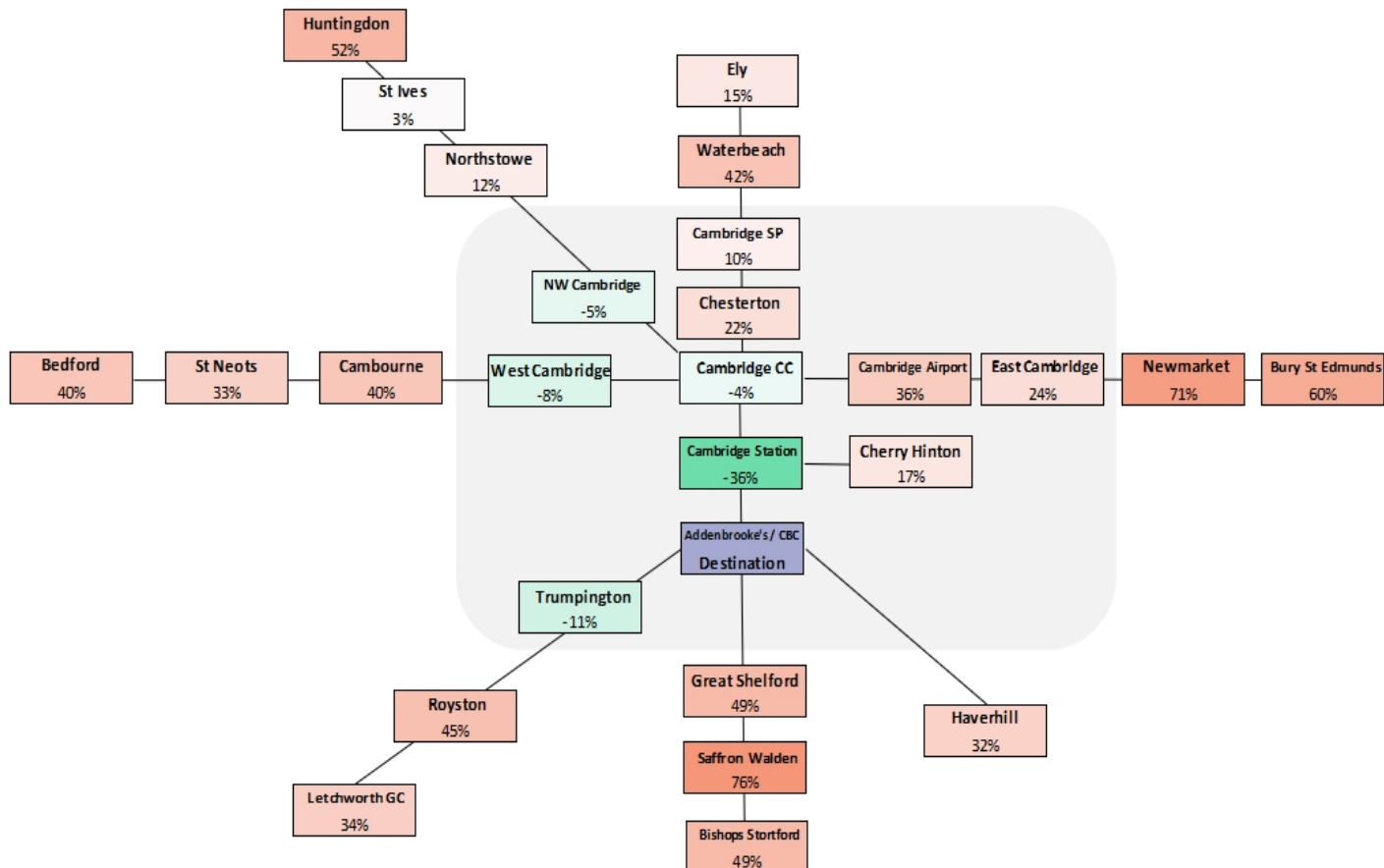


With GCP routes, service improvements and demand management changes

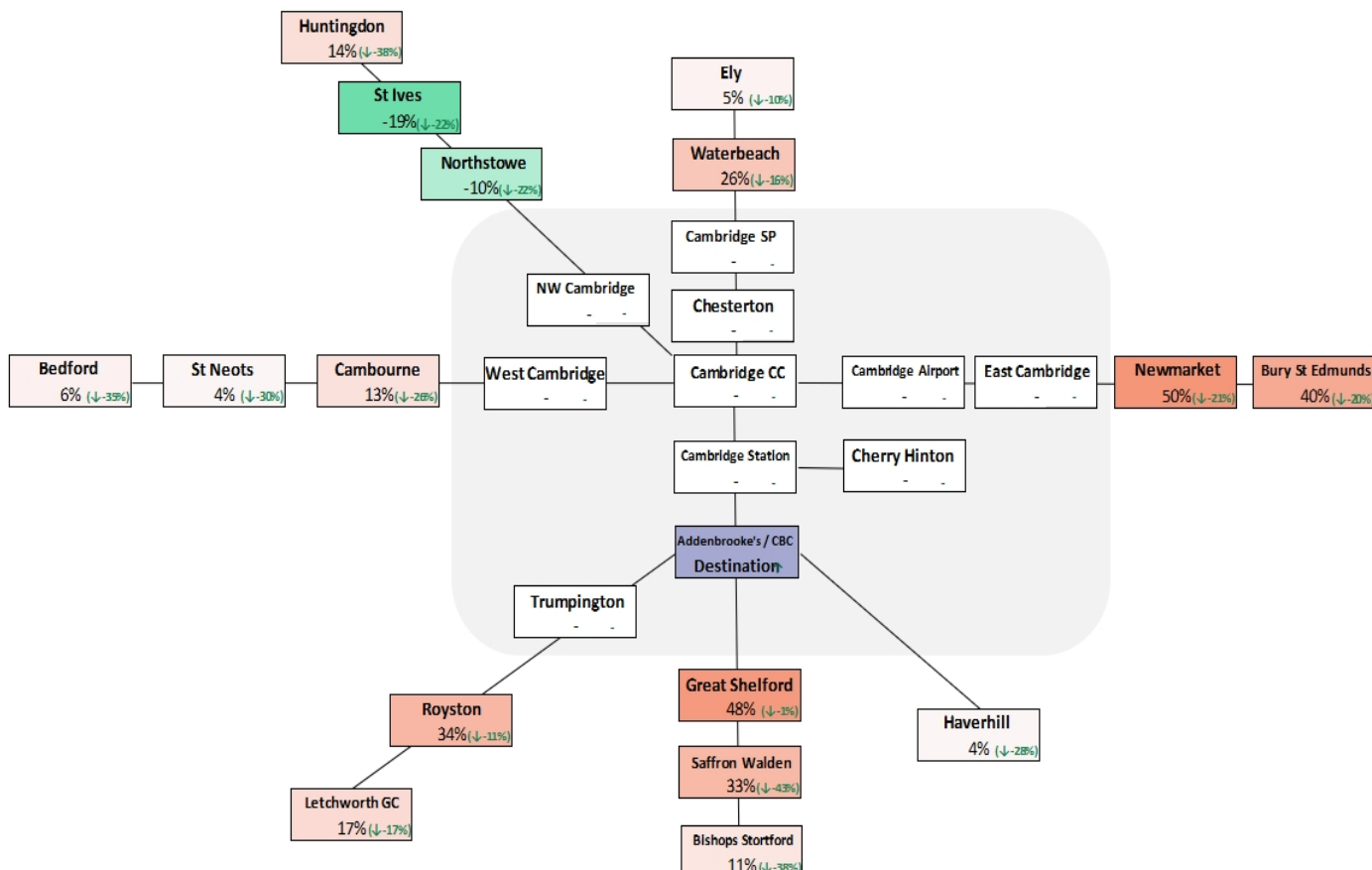


B: Cambridge Biomedical Campus / Addenbrooke's Hospital

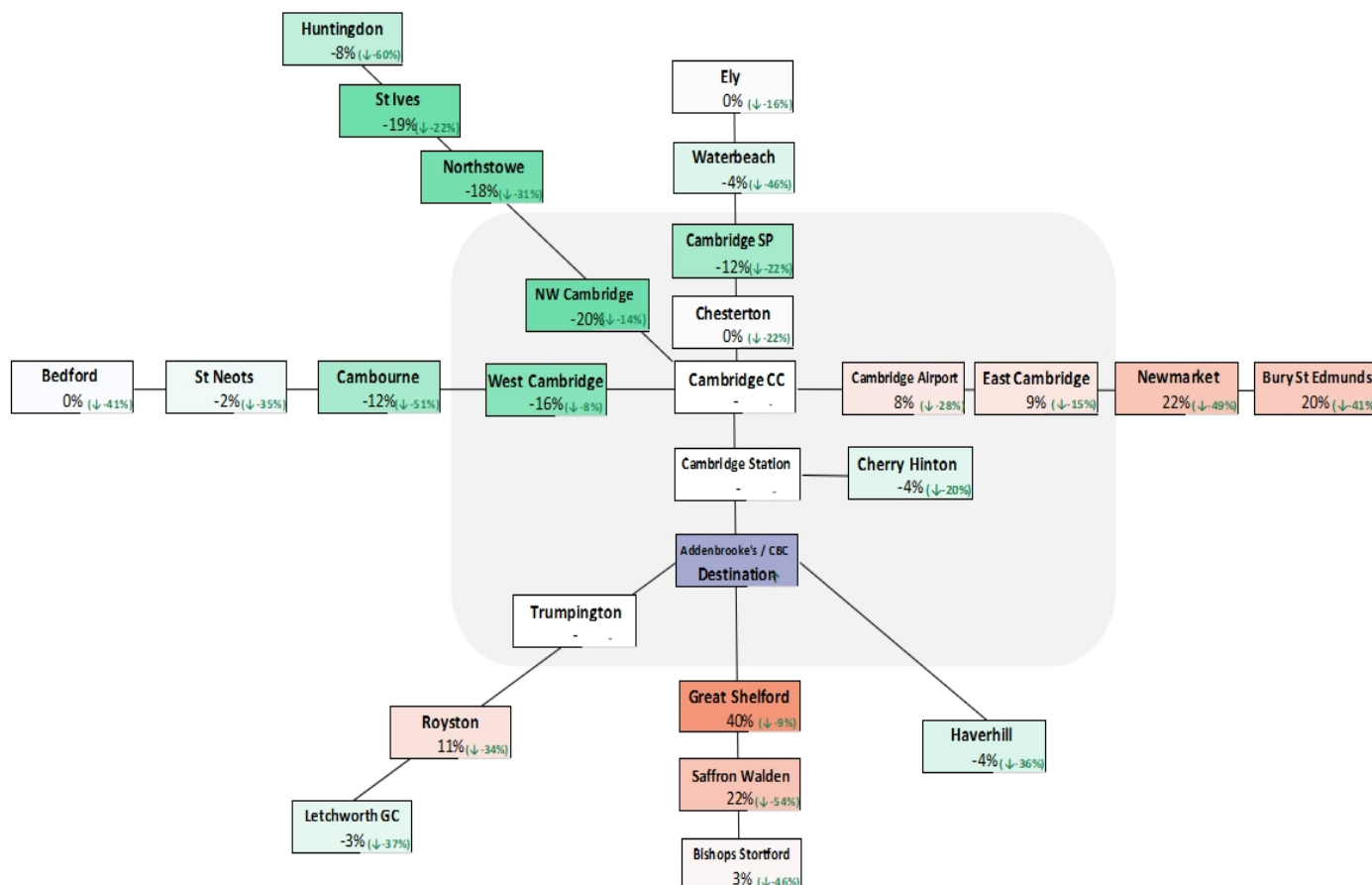
Now



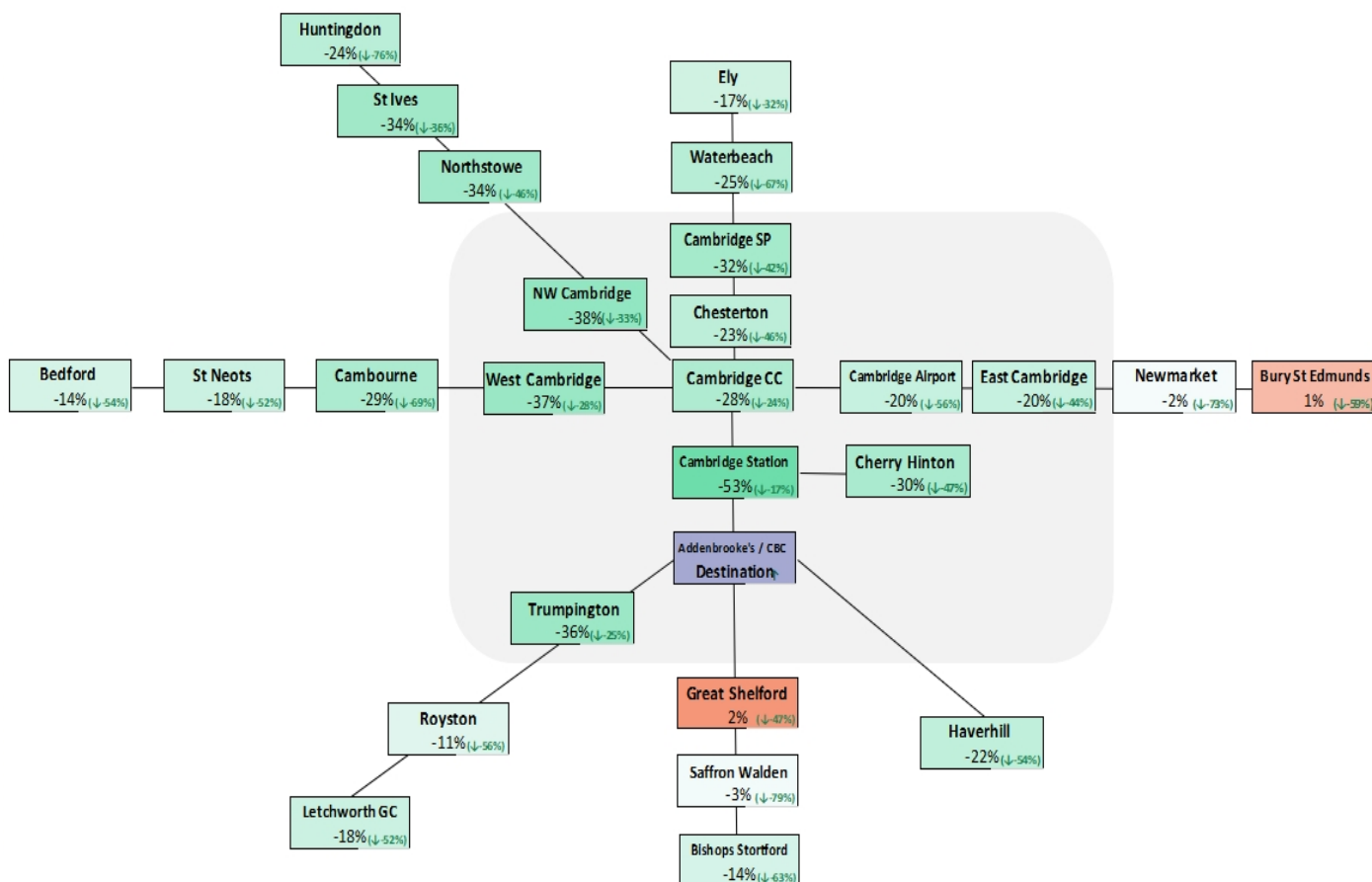
With GCP public transport routes



With GCP public transport routes and public transport service improvements

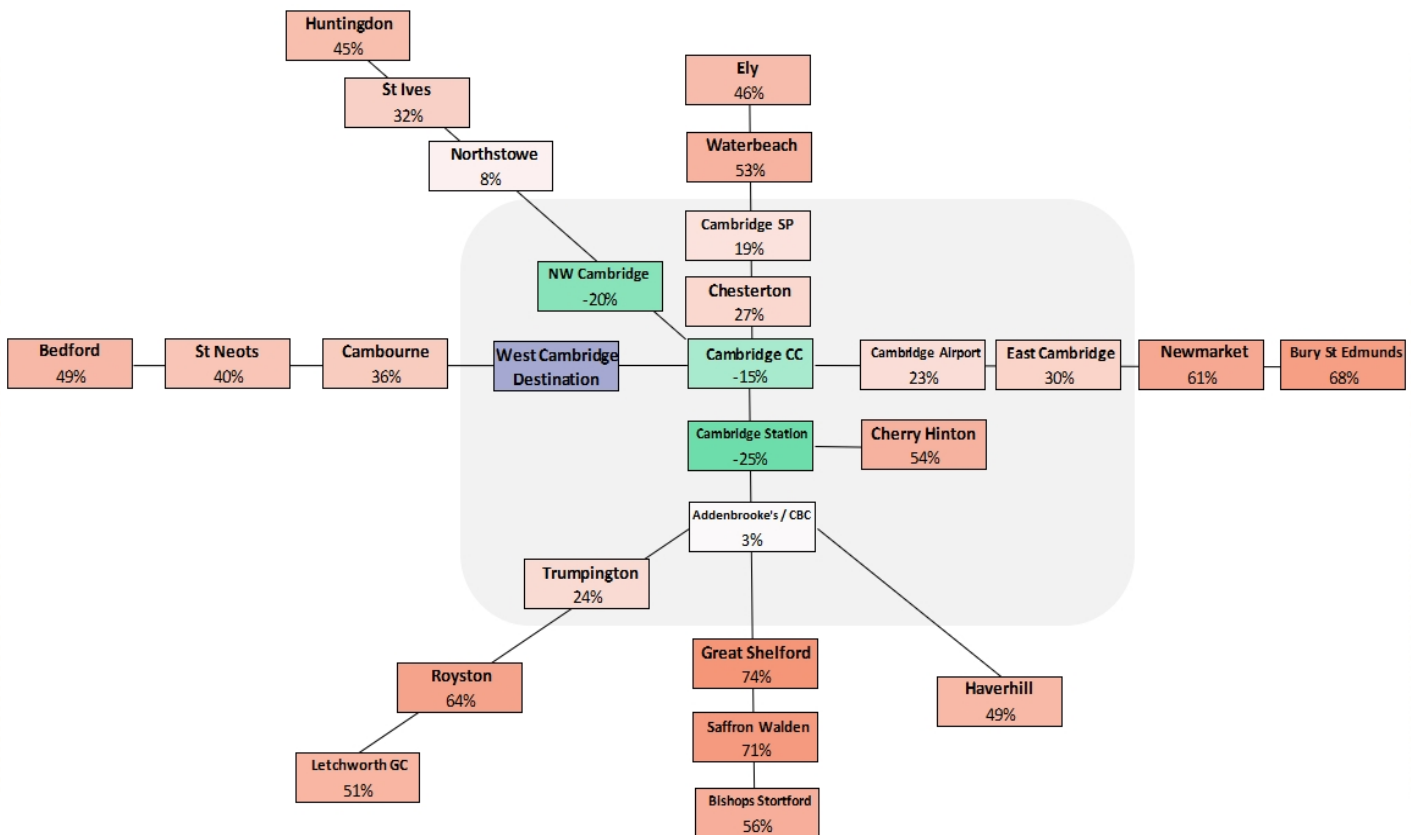


With GCP routes, service improvements and demand management changes

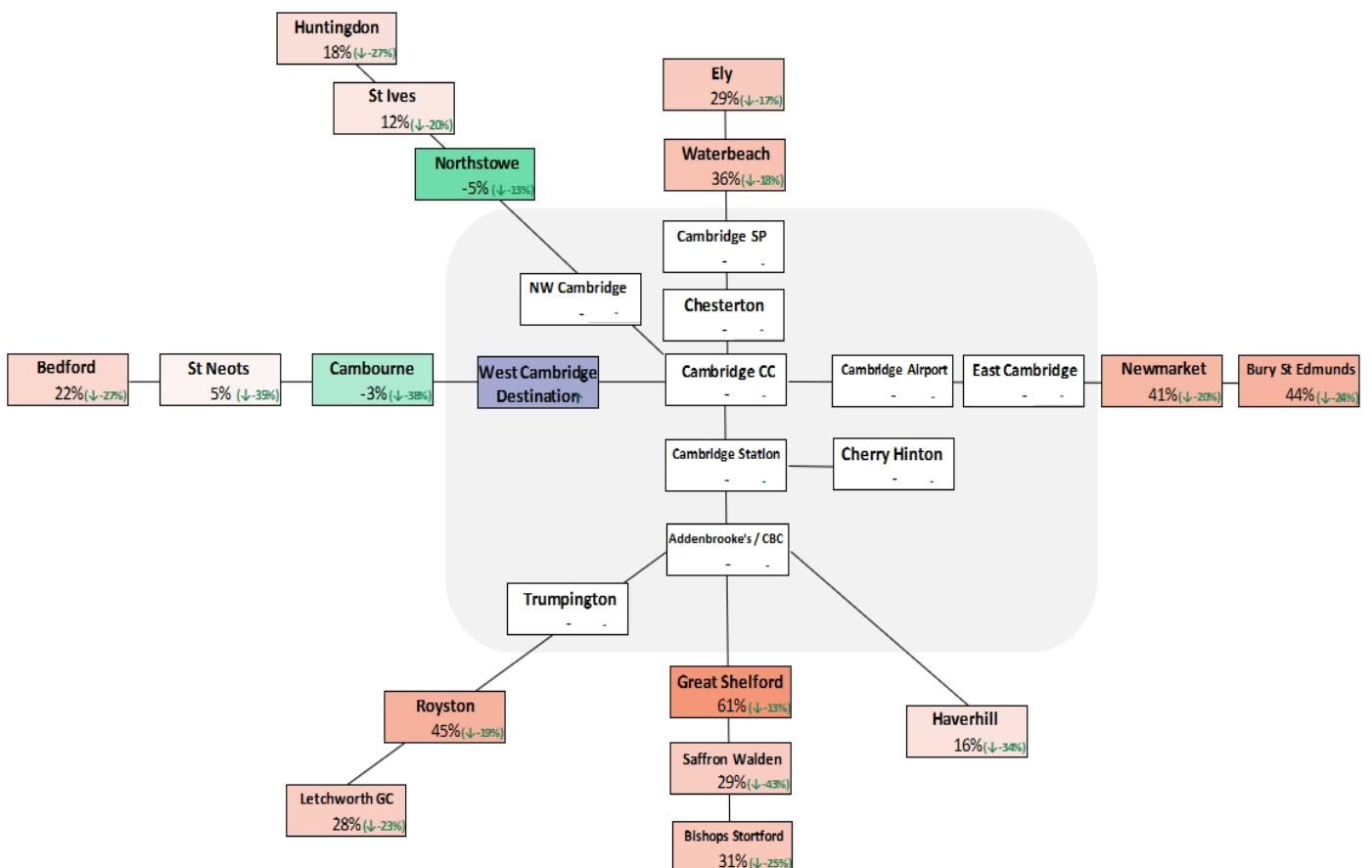


C: West Cambridge

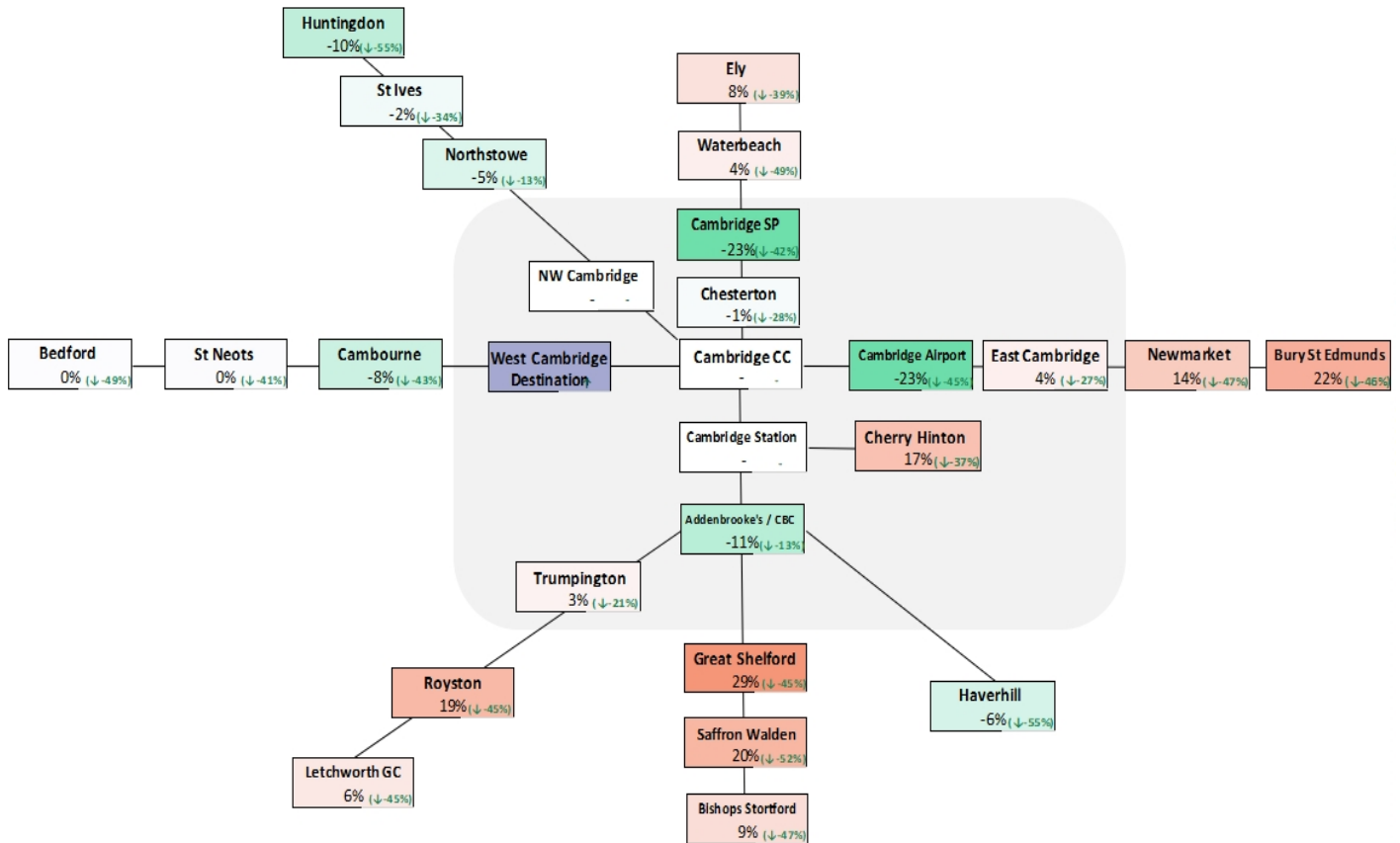
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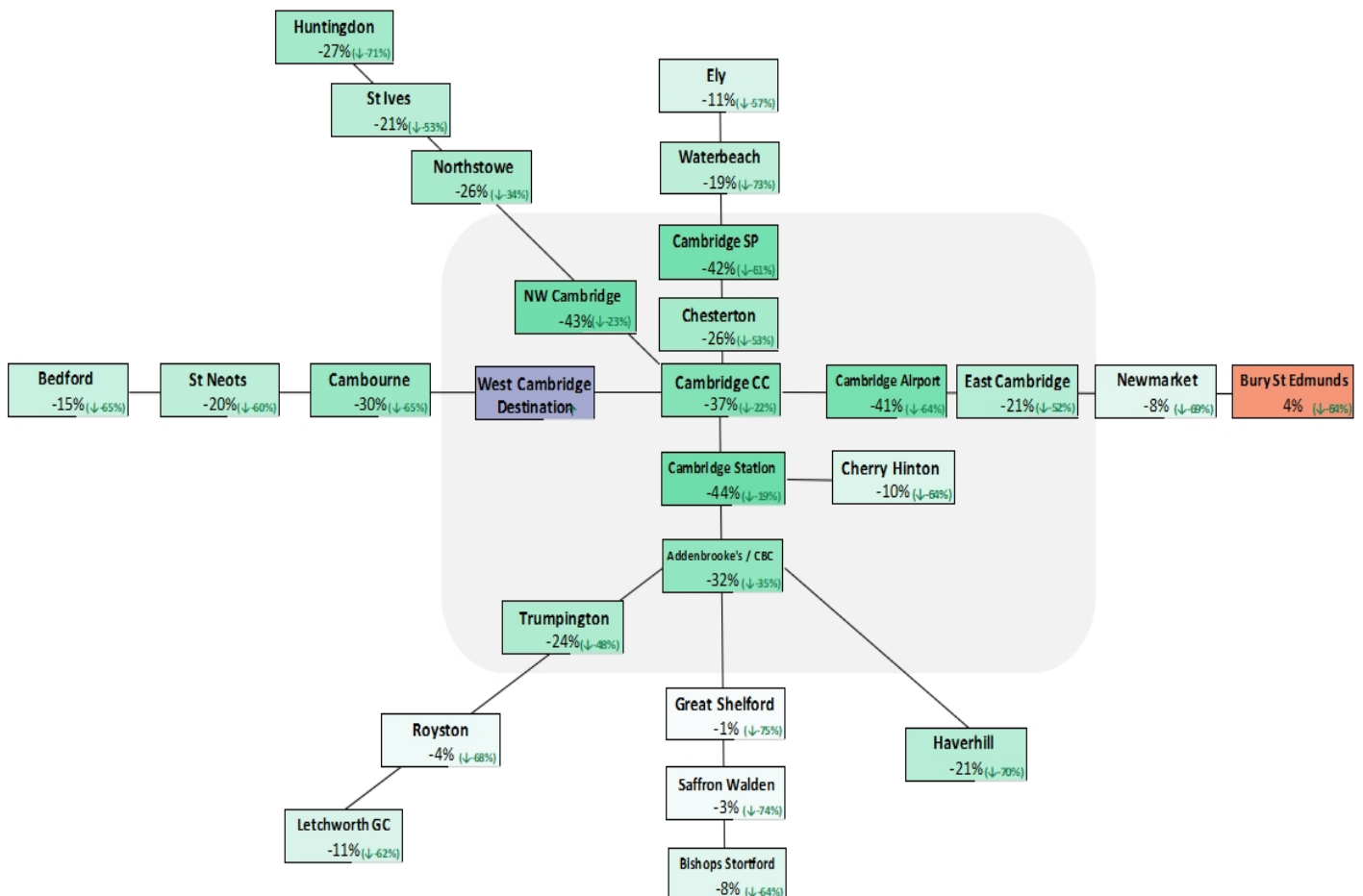
With GCP public transport routes



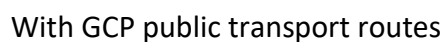
With GCP public transport routes and public transport service improvements



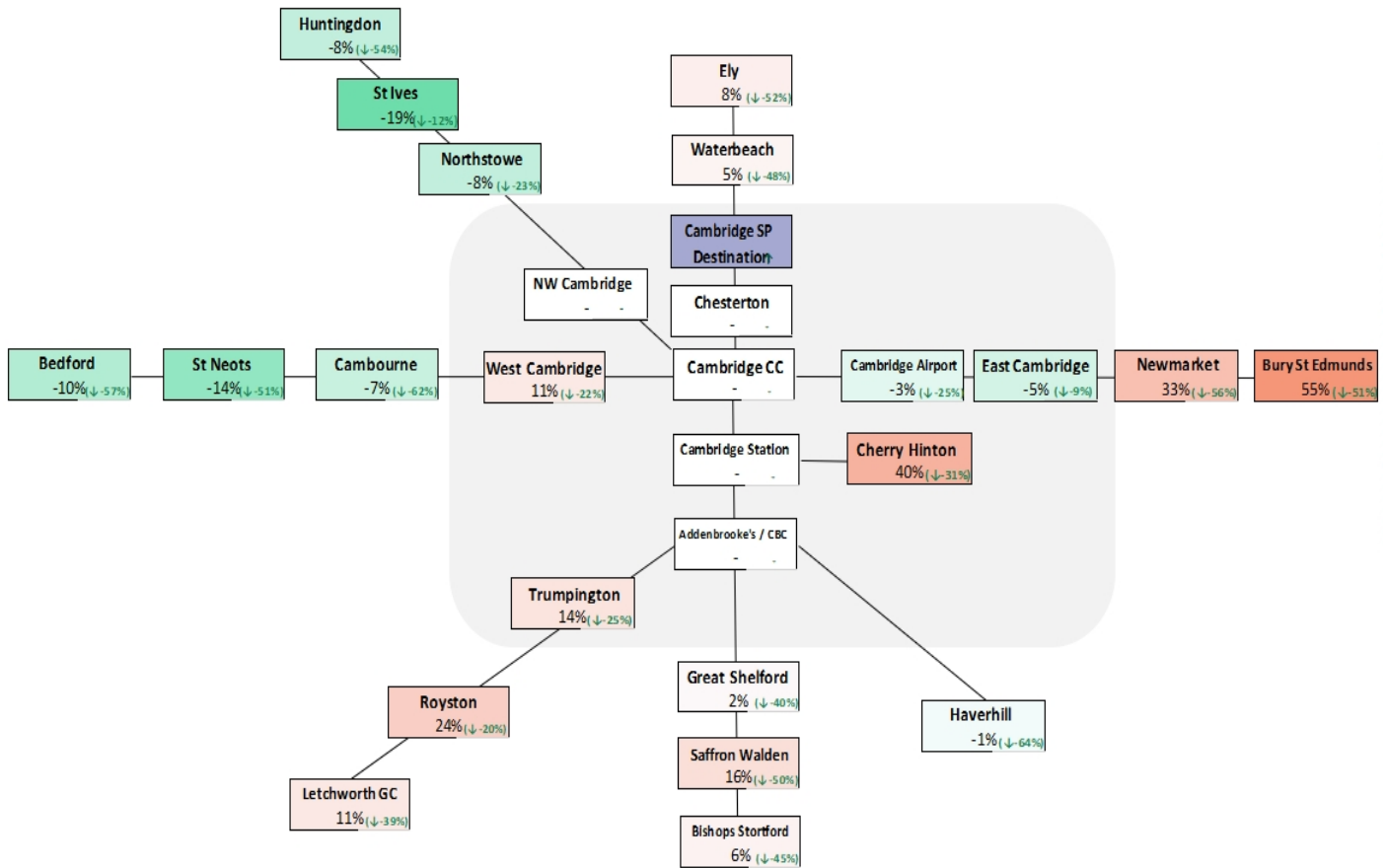
With GCP routes, service improvements and demand management changes



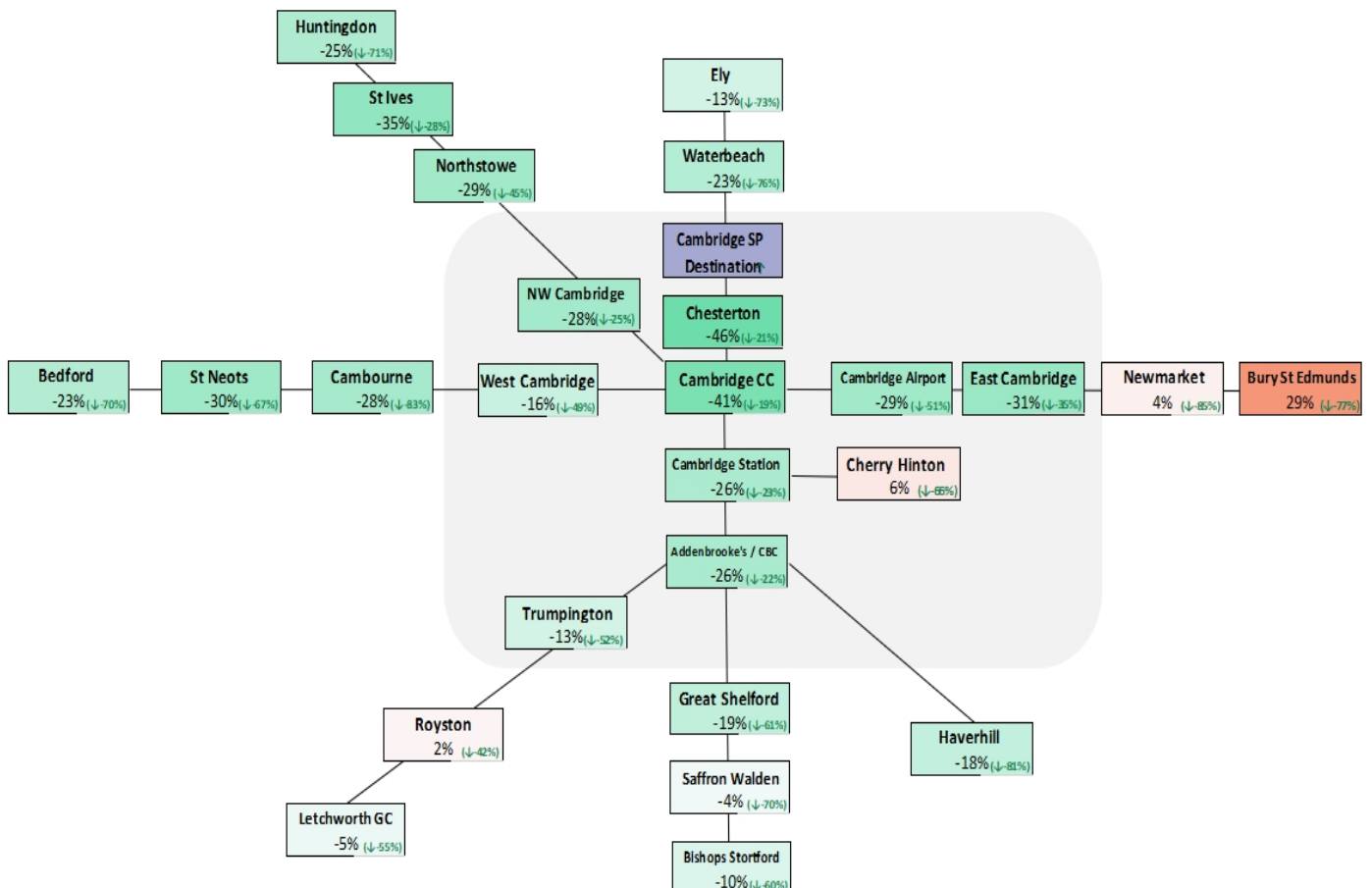
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With GCP public transport routes and public transport service improvements

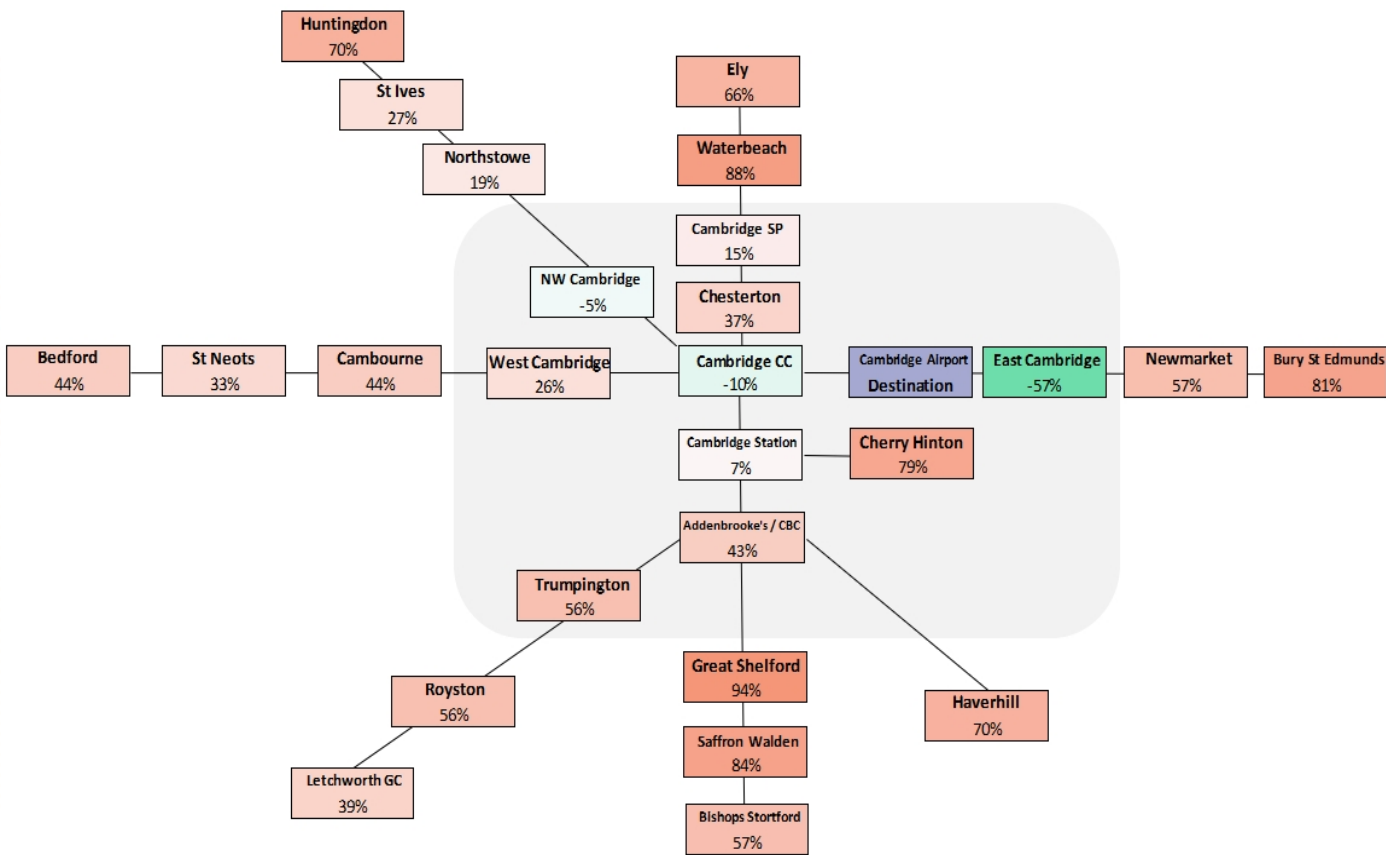


With GCP routes, service improvements and demand management changes

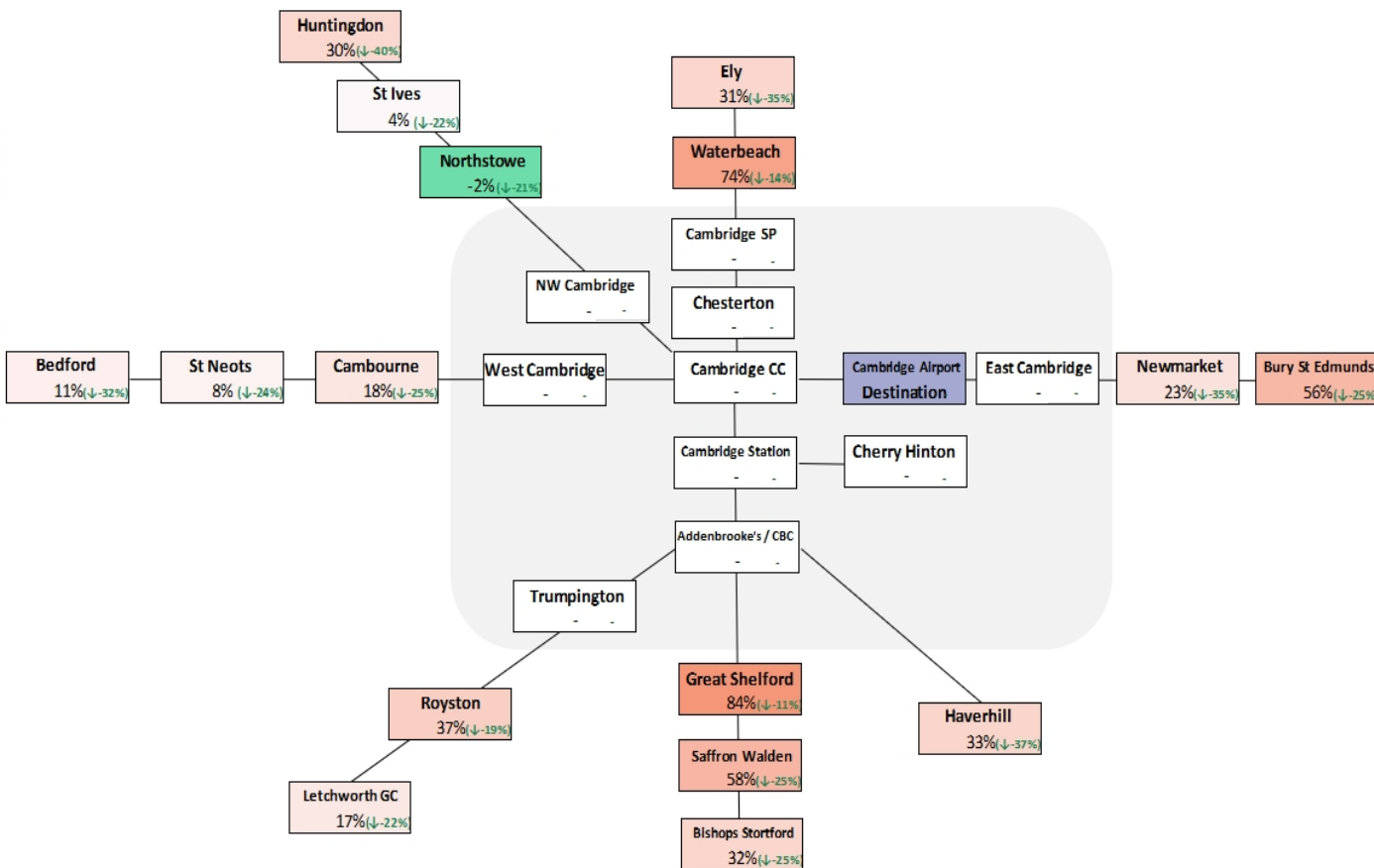


E: Cambridge Airport

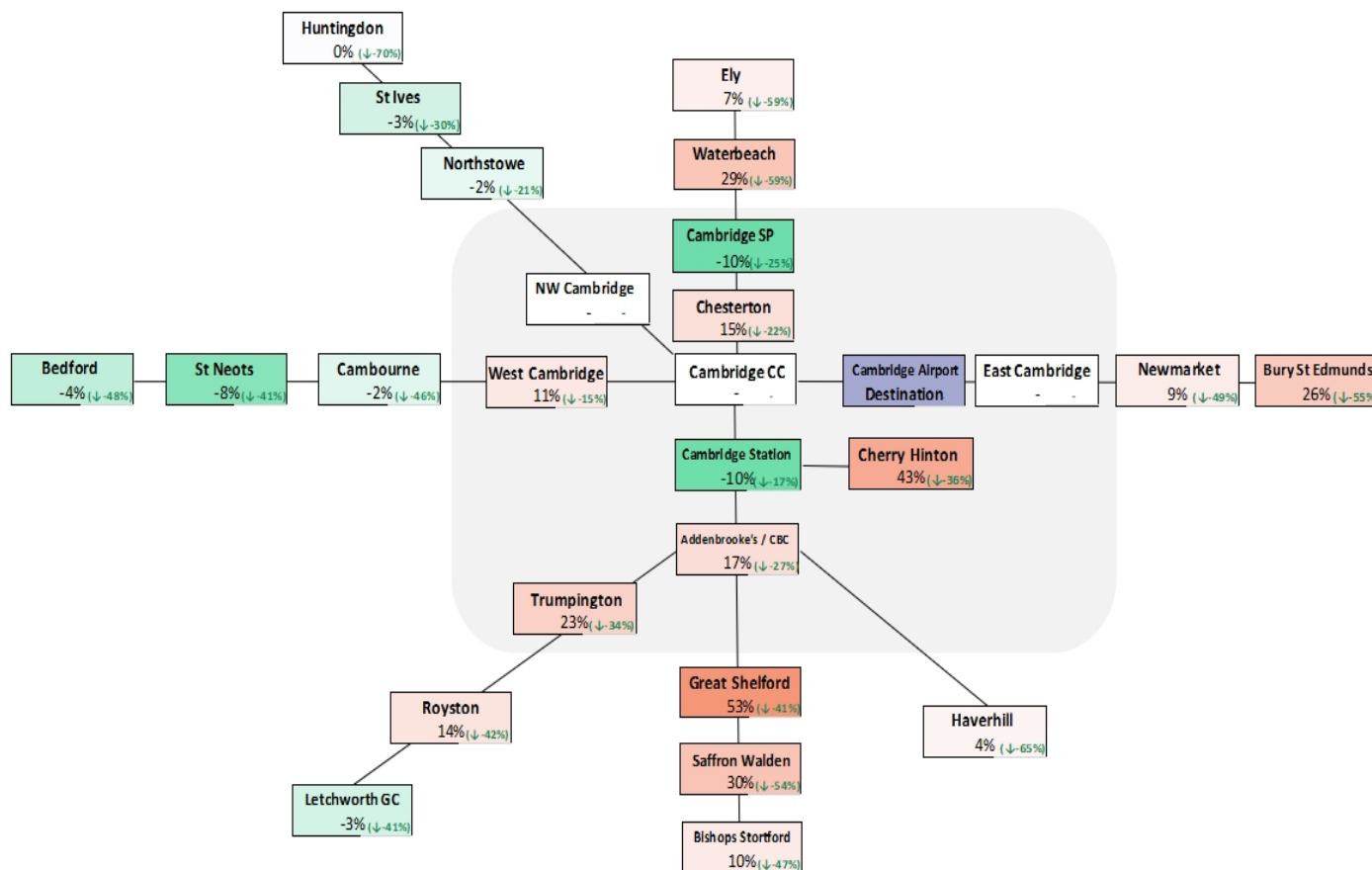
Now



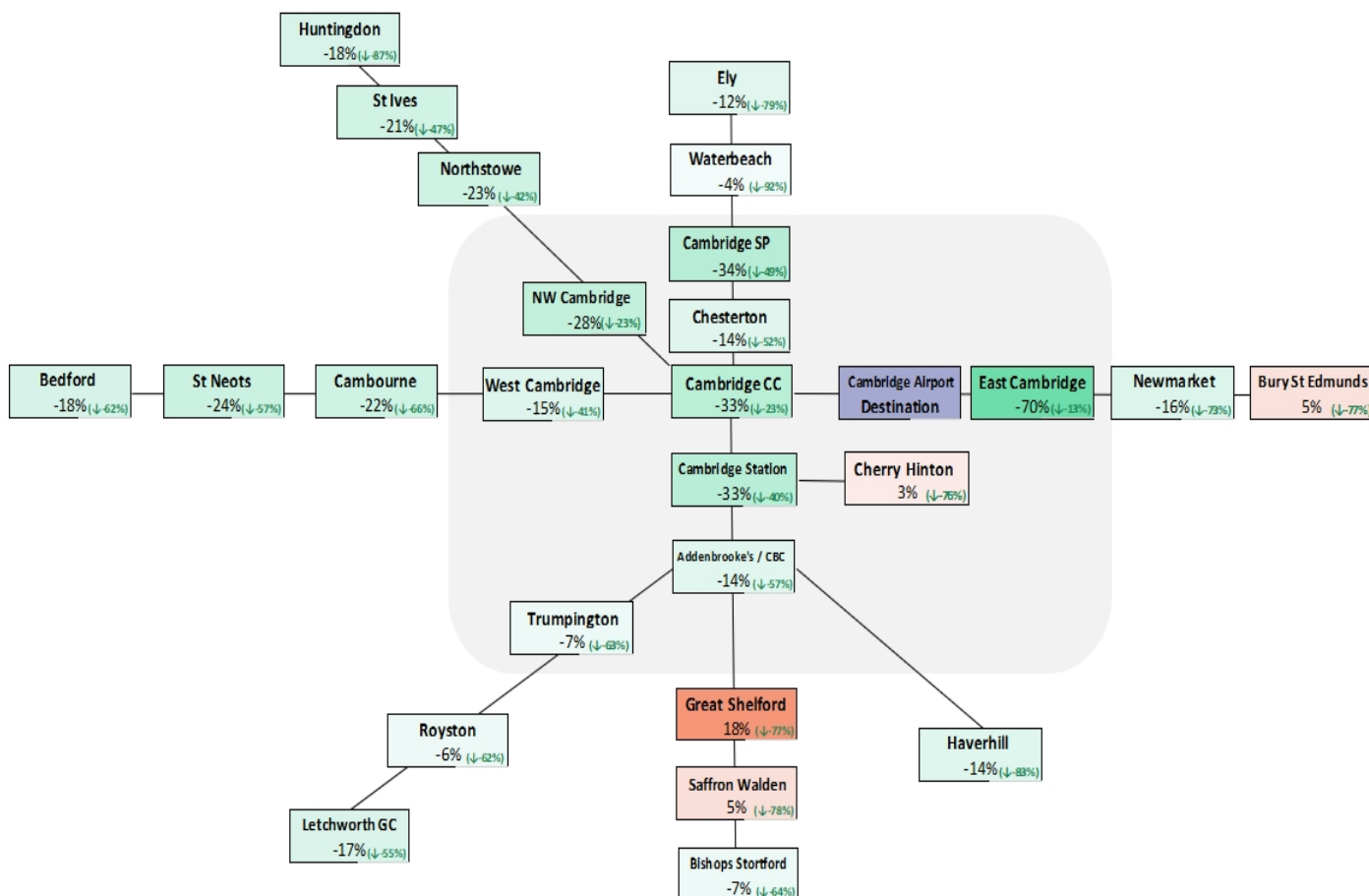
With GCP public transport routes



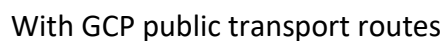
With GCP public transport routes and public transport service improvements



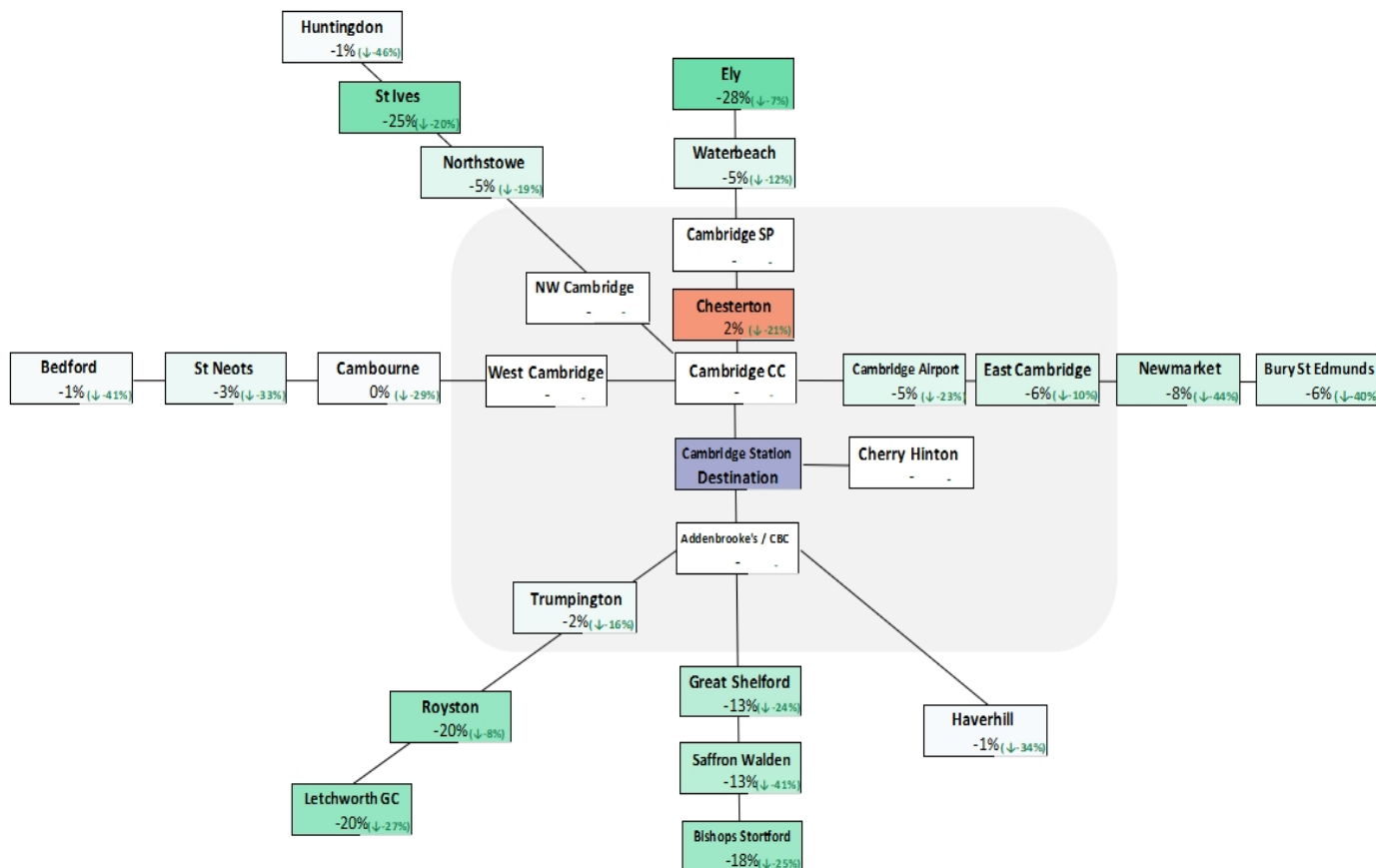
With GCP routes, service improvements and demand management changes



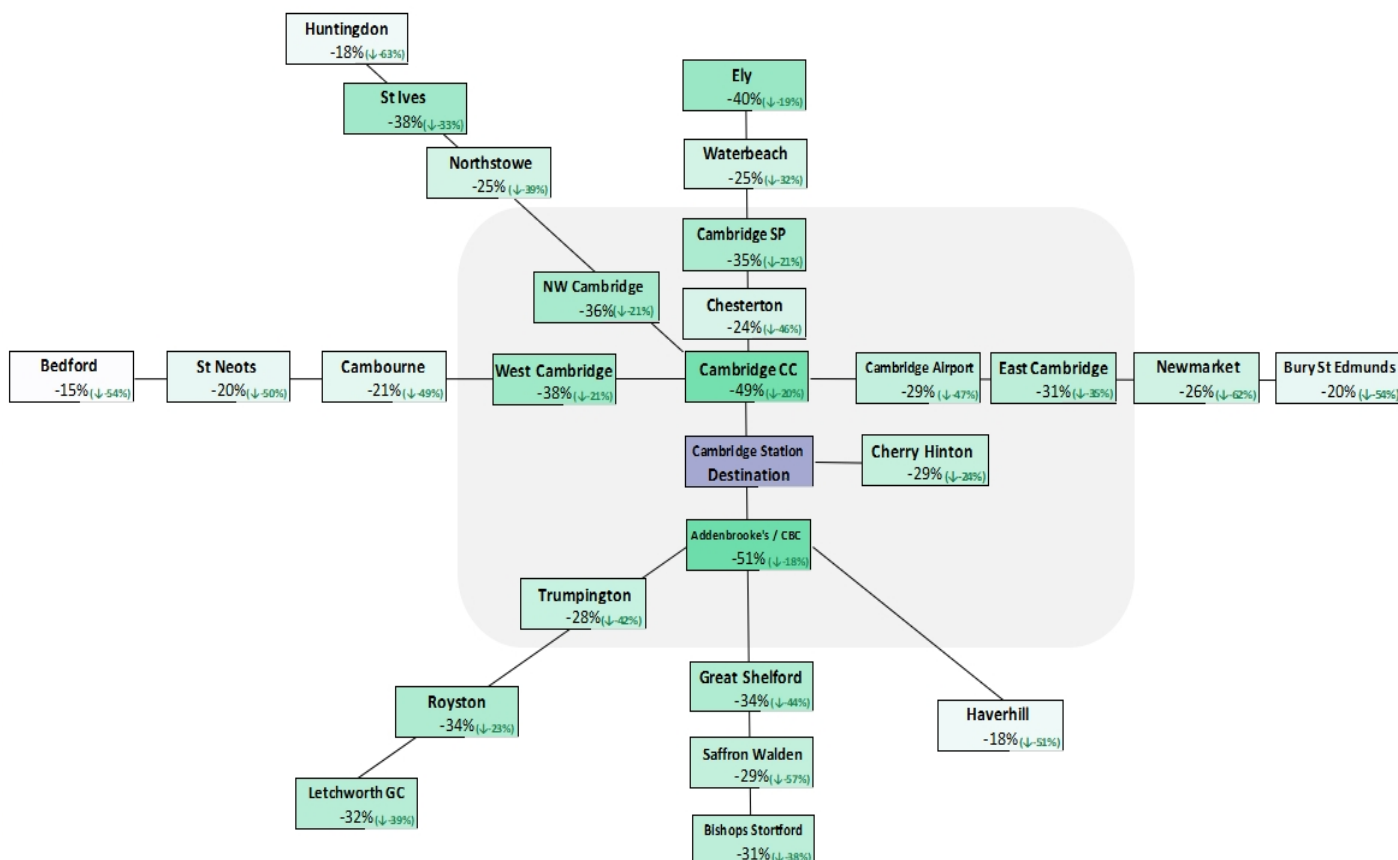
Now



With GCP public transport routes and public transport service improvements



With GCP routes, service improvements and demand management changes



Appendix 3: Prioritised list of public transport service improvements

The recommendations in this appendix result from a generalised cost analysis. The purpose of the work was to develop a high level view of how competitive public transport is with car, for key commuter flows (derived from an analysis of Census travel to work data). Further, to think about what investment might be necessary to make public transport competitive than car in future, to indicate the order of magnitude of change required. These investments can then be prioritised by how many commuters are travelling from A to B now, or because they are future strategic growth locations.

This appendix gives the headline findings of that analysis, which can inform a number of current and future investments such as the bus services review and traffic signals review.

a) Priority improvements to serve the biggest current demand flows

Improvements are ordered from highest to lowest demand for flows with at least 500 commuters as analysed from the journey to work data from the 2011 Census.

- **Cambourne to Cambridge city centre:** increased frequency from a service every 30 minutes or more to every 15 minutes, improving journey time from 30-45 minutes to less than 30 minutes.
- **Haverhill to CBC:** increased service frequency from a bus every 15-20 minutes to a bus every 10-15 minutes, improving journey time from 45-60 minutes to less than 30 minutes.
- **Northstowe to Cambridge city centre:** Service frequencies of at least a bus every 20 minutes, and marginal improvements to existing travel times of 25 minutes, as provided by CAM.
- **Great Shelford to CBC:** Services at least every 15 minutes, and travel times less than 15 minutes. (This route may only be competitive with car with price-based demand management measures, or changes to existing fare structures).
- **Ely to Cambridge city centre:** Services at least every 30 minutes, with vehicle travel times between 15-30 minutes.
- **Great Shelford to Cambridge city centre:** Services at least every 15 minutes, and travel times improving from 30-45 minutes to 15-30 minutes. (This route may only be competitive with car with price-based demand management measures, or changes to existing fare structures).
- **East Cambridge to CBC:** Service frequencies of at least 15 minutes, with travel times improving from 30-45 minutes to less than 30 minutes. (This route may only be competitive with car with price-based demand management measures as well).
- **Cherry Hinton to CBC:** Increased frequency from a service every 15-20 minutes to one every 10-15 minutes, and travel times less than 15 minutes.
- **Royston to Cambridge city centre:** Service frequencies of at least a bus every 20-30 minutes, and marginal improvements to existing travel times of 25-30 minutes.
- **Trumpington to Cambridge city centre:** Maintain existing frequencies of a service every 10 minutes with improved travel times from 15-30 minutes to less than 15 minutes.
- **Haverhill to Cambridge city centre:** Maintain existing frequencies of a service every 15-20 minutes, improved travel times from over 60 minutes to 30-45 minutes.

- **Royston to CBC:** Increased frequencies from a service every 30 minutes or more to a service every 15-20 minutes, and improved travel times from 15-30 minutes to less than 15 minutes.
- **Cherry Hinton to Cambridge city centre:** Maintain existing service frequencies of less than 10 minutes, and marginal improvements to travel times between 15-30 minutes.
- **Northstowe to Cambridge Science Park:** Increased frequencies from a service every 20-30 minutes to one every 15-20 minutes, and maintained travel times between 15-30 minutes.
- **Chesterton to Cambridge Station:** Increased frequencies from a service every 15-20 minutes to one every 10-15 minutes, and improved travel times from 15-30 minutes to less than 15 minutes.
- **Cambourne to CBC:** Increased frequencies from a service every 30 minutes or more to one every 15-20 minutes, and improved travel times from 30-45 minutes to less than 30 minutes.
- **Ely to Cambridge Science Park:** Increased frequencies from a service every 30 minutes or more to one every 10-15 minutes, and improved travel times from 30-45 minutes to less than 30 minutes.

b) Priority improvements to serve future growth centres

The following improvements are intended to serve locations that are identified as major growth sites with greater than 5000 homes or jobs at both origin and destination. These are ordered by existing demand as analysed from the journey to work data in the 2011 Census.

- **Haverhill to CBC:** As identified above.
- **Northstowe to Cambridge Science Park:** As identified above.
- **Cambourne to CBC:** As identified above.
- **Cambourne to Cambridge Science Park:** Increased frequencies from a service every 30 minutes or more to a service every 15-20 minutes, and improved travel times from 45-60 minutes to less than 30 minutes.
- **Northstowe to CBC:** Maintain frequencies for a service every 20-30 minutes, and improved travel times from 45-60 minutes to less than 30 minutes.
- **Cambourne to West Cambridge site:** Increased frequencies from a service every 30 minutes or more to a service every 15-20 minutes, and improved travel times from 15-30 minutes to less than 15 minutes.
- **Northstowe to West Cambridge site:** Maintain frequencies for a service every 20-30 minutes, and marginal improvements on existing travel times of less than 30 minutes.
- **Haverhill to Cambridge Science Park:** Increased frequencies from a service every 20-30 minutes to a service every 15-20 minutes, and improved travel times from longer than 60 minutes to less than 45 minutes.
- **Waterbeach to Cambridge Science Park:** Increased frequencies from a service every 30 minutes or more to a service every 10-15 minutes, with maintained travel times of less than 15 minutes. (This route may only be competitive with car with price-based demand management measures).
- **Waterbeach to CBC:** Increased frequency from every 30 minutes to every 15 minutes, improving journey time from 40+ minutes to 25 minutes.

- **Haverhill to West Cambridge site:** increased frequency from a service every 30 minutes to a bus every 10-15 minutes, improving journey time from 100 minutes to 50 minutes.
- **Waterbeach to West Cambridge site:** Increased frequency from a service every 30 minutes or more to every 15-20 minutes, with improved travel times from 30-45 minutes to less than 30 minutes. (This route may only be competitive with car with price-based demand management measures).

The following improvements are intended to serve locations identified as major growth sites with at least one of the sites with greater than 5000 homes or jobs, and one growth site with less than 5000 homes or jobs. These are ordered by existing demand as analysed from the journey to work data in the 2011 Census.

- **Cambourne to Cambridge city centre:** As identified above
- **Northstowe to Cambridge city centre:** As identified above.
- **East Cambridge to CBC:** As identified above.
- **Haverhill to Cambridge city centre:** As identified above.
- **East Cambridge to Cambridge Science Park:** Maintain frequency of a service at least every 15 minutes, and improved travel times from 15-30 minutes to less than 15 minutes.
- **Waterbeach to Cambridge city centre:** Increased frequency from a service every 30 minutes or more to 20-30 minutes, with improved travel times from 30-45 minutes to 15-30 minutes.
- **West Cambridge site to Cambridge Science Park:** Increased frequency from a service every 20-30 minutes to one every 15-20 minutes, with travel times maintained at 15-30 minutes. (This route may only be competitive with car with price-based demand management measures).
- **Cambridge Science Park to CBC:** Increased frequency from a service every 20-30 minutes to a service every 15-20 minutes, with travel times maintained at 15-30 minutes.
- **St Neots to Cambridge Science Park:** Increased frequency from a service every 30 minutes or more to one every 15-20 minutes, with improved travel times from 45-60 minutes to less than 30 minutes.
- **Saffron Walden to CBC:** Increased frequency from a service every 30 minutes or more to one at least every 15 minutes, and improved travel times from 30-45 minutes to less than 30 minutes. (This route may only be competitive with car with price-based demand management measures, or changes to existing fare structures).
- **St Neots to CBC:** Services at least every 30 minutes, and improved travel times from over 60 minutes to less than 30 minutes.
- **Trumpington to Cambridge Science Park:** Increased frequency from a service every 15-20 minutes to one every 10-15 minutes, with improved travel times from 30-45 minutes to less than 30 minutes.
- **St Neots to West Cambridge site:** Increased frequency from a service every 30 minutes or more to one every 15-20 minutes, with improved travel times from 15-30 minutes to less than 15 minutes.
- **East Cambridge to West Cambridge site:** Increased frequency from a service every 15 minutes to one every 10 minutes, with maintained travel times of 30-45 minutes. (This route may only be competitive with car with price-based demand management measures).
- **Saffron Walden to Cambridge Science Park:** Increased frequency from a service every 30 minutes or more to a service every 10-15 minutes, and a travel time of 45-60 minutes to less than 30 minutes.

- **Cambridge Science Park to West Cambridge site:** Increased frequency from a service every 30 minutes or more to a service every 10-15 minutes, and improved travel times from 15-30 minutes to less than 15 minutes.
- **Trumpington to West Cambridge site:** Increased frequency from a service every 10-15 minutes to one every 10 minutes or less, with maintained travel times of 15-30 minutes.
- **CBC to West Cambridge site:** Maintain frequency of a service every 10-15 minutes, with improved travel times from 30-45 minutes to less than 30 minutes.
- **Saffron Walden to West Cambridge site:** Increased frequency from a service every 30 minutes or more to a service every 15-20 minutes, with improved travel times from 45-60 minutes to less than 30 minutes.
- **St Neots to Cambridge City centre:** Increased frequency from a service every 30 minutes or more to a service every 15-20 minutes, with improved travel times from 30-45 minutes to less than 30 minutes.

Appendix 4: Growth areas – competitiveness of public transport

Now

From/To	Cambridge CC	Addenbrooke's / CBC	Cambridge SP	Cambridge Airport	Cambridge West	Cambridge Station
North West Cambridge	-37%	-5%	-4%	-5%	-20%	-15%
Cambourne	24%	61%	91%	66%	42%	47%
Trumpington	0%	-11%	39%	56%	24%	14%
East Cambridge	-25%	24%	4%	-57%	30%	4%
Waterbeach	84%	151%	98%	161%	157%	80%
Northstowe	2%	12%	16%	19%	8%	14%

With GCP public transport routes

From/To	Cambridge CC	Addenbrooke's / CBC	Cambridge SP	Cambridge Airport	Cambridge West	Cambridge Station
North West Cambridge	-37%	-5%	-4%	-5%	-20%	-15%
Cambourne	-18%	13%	26%	18%	-3%	7%
Trumpington	0%	-11%	39%	56%	24%	12%
East Cambridge	-25%	24%	4%	-57%	30%	4%
Waterbeach	26%	38%	35%	88%	48%	7%
Northstowe	-10%	-10%	-8%	-2%	-5%	-5%

With GCP public transport routes and service improvements

From/To	Cambridge City Centre	Addenbrooke's Hospital / CBC	Cambridge Science Park	Cambridge Airport	Cambridge West	Cambridge Station
North West Cambridge		-20% (-14%)				
Cambourne	-18% (-37%)	-12% (-51%)	-7% (-62%)	-2% (-46%)	-8% (-43%)	0% (-29%)
Trumpington	-1% (-1%)		14% (-25%)	23% (-34%)	3% (-21%)	-2% (-16%)
East Cambridge	-37% (-12%)	9% (-15%)	-5% (-9%)		4% (-27%)	-6% (-10%)
Waterbeach	-1% (-36%)	-4% (-46%)	5% (-48%)	29% (-59%)	4% (-49%)	-5% (-12%)
Northstowe	-10% (-12%)	-18% (-31%)	-2% (-23%)	-2% (-21%)	-5% (-13%)	-5% (-19%)

With GCP public transport routes, service improvements and demand management

From/To	Cambridge CC	Addenbrooke's Hospital / CBC	Cambridge Science Park	Cambridge Airport	Cambridge West	Cambridge Station
North West Cambridge	-54% (-17%)	-38% (-33%)	-28% (-25%)	-28% (-23%)	-43% (-23%)	-36% (-21%)
Cambourne	-35% (-53%)	-29% (-69%)	-28% (-83%)	-22% (-66%)	-30% (-65%)	-21% (-49%)
Trumpington	-27% (-27%)	-36% (-25%)	-13% (-52%)	-7% (-63%)	-24% (-48%)	-28% (-42%)
East Cambridge	-45% (-20%)	-20% (-44%)	-31% (-35%)	-70% (-13%)	-21% (-52%)	-31% (-35%)
Waterbeach	-23% (-53%)	-25% (-67%)	-23% (-76%)	-4% (-92%)	-19% (-73%)	-25% (-32%)
Northstowe	-30% (-32%)	-34% (-46%)	-29% (-45%)	-23% (-42%)	-26% (-34%)	-25% (-39%)

Appendix 5: Key features of Demand Management Options

	Workplace Parking Levy (WPL)	Intelligent Charging	Parking Controls	Toxicity Charge (T-Charge)	Physical measures
Feedback from business (as recorded at Big Conversation business briefings unless otherwise stated)	<ul style="list-style-type: none"> Some business saw WPL as an opportunity to develop land currently used for parking. Many businesses were opposed to WPL because of the impact on low paid staff. Examples include Colleges with low paid staff working outside office hours who park at the College 	<ul style="list-style-type: none"> Recognition that some form of congestion charging is required and support for it being 'intelligent'. Marked preference for this over WPL 	<ul style="list-style-type: none"> Some support for more parking controls. Some businesses supported expansion/extended hours of existing P&R sites and new P&R sites 	<ul style="list-style-type: none"> Some recognition that pollution/emissions need to be tackled 	<ul style="list-style-type: none"> 'Tackling Peak Time congestion' (summer-autumn 2016) resulted in negative feedback from businesses. In particular 'The least popular option was the introduction of the 6 Peak-time Congestion Control Points'
Big Conversation (Resident feedback from the Systra survey)	<ul style="list-style-type: none"> The Systra residents' survey indicates that this is a low scoring demand management option (significantly below Intelligent Charging) 	<ul style="list-style-type: none"> The Systra residents' survey indicates that this is the highest scoring demand management option (above parking controls and WPL). 	<ul style="list-style-type: none"> The Systra residents' survey indicates that this is a low scoring demand management option (significantly below Intelligent Charging) 	<ul style="list-style-type: none"> The Systra residents' survey indicates that this is the second highest scoring demand management option (well above parking controls and WPL). 	<ul style="list-style-type: none"> Not explicitly addressed in the Big Conversation survey, although previous attempts to manage demand through physical measures have been poorly received by the public.
Demand Impact	<ul style="list-style-type: none"> A £1000 WPL is extremely unlikely to meet the desired 15% demand reduction (impact is estimated at 2%). This is partly because only 40% of the levy is assumed to be passed on to employers. Experience from Nottingham suggests that a WPL may have a supply effect with a reduction in available car parking space in the run-up to implementation as employers reduce their parking spaces to avoid the levy. In this way it could act as a catalyst to physical demand management. 	<ul style="list-style-type: none"> Significant impact on demand as this measure can lead to the targeted reduction of 15% from baseline by 2030. This is a particularly effective long-term measure as all vehicles will be charged and the measure is thus not affected by the significant clean-up in the vehicle fleet over time. 	<ul style="list-style-type: none"> Parking controls will lead to some reduction in flows, but are unlikely to meet demand reduction target either alone or in combination with WPL. Parking controls furthermore need to be more aggressive as people that are among this group in our model are already subject to parking charges and are therefore likely to be among a less price sensitive user class. Increasing city centre parking charges by £5 per use could lead to an estimated 4% traffic demand reduction. 	<ul style="list-style-type: none"> Potential to reduce flows at early stages of scheme as a significant proportion of vehicles are defined as polluting. As pool of polluting vehicles however decreases over time a T-charge becomes ineffective. Can reduce flows of 12,000 in the 'Road and Parkin Charge' scenario – will however at no point in time meet target reduction. 	<ul style="list-style-type: none"> For targeted road closure schemes, demand reduction is estimated to be approximately 8%. Prohibiting car traffic from most of the city centre inside the inner ring road could reduce morning peak demand by around 24%.

Potential Revenue Impact	<ul style="list-style-type: none"> WPL can be a relatively effective tool for generating revenues (model outputs suggest that a £1000 charge could generate £13m). 	<ul style="list-style-type: none"> Will provide a significant source of income for the council in all scenarios as all vehicles are charged (net revenue estimates vary from ~£40 to ~£90 million depending on scheme definition). 	<ul style="list-style-type: none"> An increase of city centre parking charges by £5 per use could lead to an estimated £16m annual additional revenue. 	<ul style="list-style-type: none"> Will provide a healthy source of revenue at early stages as pool of polluting vehicle are still a significant proportion of the total vehicle fleet (can produce a maximum of £25m in 2021). Revenues will however gradually decrease to zero over time as fleet cleans up. 	<ul style="list-style-type: none"> None directly May be indirect increases in public transport farebox revenue if demand for public transport is boosted because of physical demand management measures.
Equality Impact	<ul style="list-style-type: none"> Disadvantaged people are less likely to be in employment – but it may form an unintended barrier to unemployed people being able to afford to find and take paid employment. Furthermore, employers are most likely to bear the costs of a WPL. Small businesses may find the cost harder to absorb than big business. This impact could be mitigated by exempting small business. 	<ul style="list-style-type: none"> Significant and positive impacts as high revenues can be invested in PT improvements that is relatively popular among disadvantaged health, income and age groups. However low-income groups that have no option of using PT will be particularly negatively affected by a charge as they will spend a higher proportion of their income on the scheme. 	<ul style="list-style-type: none"> As with an intelligent charging, disadvantaged people could benefit more from parking controls due to their higher PT uptake. However low-income groups that have no option of using PT will be particularly negatively affected by a charge as they will spend a higher proportion of their income on the scheme. 	<ul style="list-style-type: none"> Compared to Intelligent Charge, disproportionately affects lower income groups as this group is more likely to drive high emitting vehicles. This is due to higher prices for more modern, low polluting cars. Some positive impacts at beginning of scheme as initial revenues can be invested in PT which is used disproportionately by disabled, older and/or lower income groups. This positive effect however fades as revenues decrease. 	<ul style="list-style-type: none"> Physical demand management measures may have negative equalities impacts on those that are physically impaired and need to drive. Physical demand management measures remove choice from the driving public.
Pros: opportunities and benefits	<ul style="list-style-type: none"> The main pro is the potential to impact commuter behaviours including modal shift if businesses choose to pass on the charge. There is also the likelihood that some businesses will be incentivised to release car parks for more productive uses (e.g. housing or employment) providing windfall and infill sites in the city centre and at key employment locations. 	<ul style="list-style-type: none"> Greatest potential to deliver the 10-15% reduction in traffic, modal shift and the other City Access objectives Significant potential for funding for improved, subsidised public transport and sustainable alternatives which helps to address concerns about low paid workers Potential modal shift to sustainable transport options Potential flexibility may allow change over time. This could provide a means of adjustment in 	<ul style="list-style-type: none"> Potentially an effective way to achieve modal shift to sustainable transport options Reduced parking might over time lessen problems caused by queues for car parks if there is sufficient modal shift Space freed up from parking can be used in ways that contribute to the GCP aims 	<ul style="list-style-type: none"> Health benefits and public realm benefits from reduced emissions Through traffic may avoid the area and thus reduce congestion Vehicle owners (businesses and individuals) may change their vehicles over time This may encourage new delivery operations e.g. electric fleet, freight consolidation 	<ul style="list-style-type: none"> Can influence congestion and public realm in specific areas This may lead to improved air quality and better health outcomes. It could contribute to a safer and more welcoming environment for walking and cycling with congestion reduction benefits as well as the health benefits of increased activity levels.

		<p>response to feedback from those affected</p> <ul style="list-style-type: none"> • Could be managed in conjunction with the T-charge thus increasing efficiency 		<ul style="list-style-type: none"> • Could be managed in conjunction with Intelligent Charging thus increasing efficiency 	<ul style="list-style-type: none"> • Potential modal shift to sustainable transport options
<p>Cons</p>	<ul style="list-style-type: none"> • Relatively small potential for funding improvements ('carrots') in comparison to Intelligent Charging. • Very limited impact on overall demand due to low propensity of workplace parking • Business opposition • For those businesses that don't release land but choose to pay the Levy, it is not clear what proportion would absorb a Levy as a business overhead (which would be likely to have minimal traffic reduction impact) and what proportion would pass the cost on to individual drivers. 	<ul style="list-style-type: none"> • There is a perception that this option would negatively impact those travelling from outside the city more than those living in Cambridge. The ANPR survey results show around 90,000 trips (50% of total – 24-hour survey period) are "internal to internal". This suggests that the impact would fall on both groups in almost equal measure. 	<ul style="list-style-type: none"> • The impact on overall demand due to parking charges is limited and will not be able to meet the demand targets in isolation • The revenue potential of this mechanisms is significant but not as great as that of intelligent charging • Effective use of parking controls for demand management may reduce revenues, with a negative impact on City and County Council budgets (particularly significant for City given its relatively high proportion of overall budget). 	<ul style="list-style-type: none"> • Risk of displacement rather than behavioural change • Will become increasingly obsolete in the coming years as the overall vehicle fleet transitions to clean vehicles • As the charge becomes obsolete the demand impact will be reduced to negligible and revenues will also be virtually eliminated 	<ul style="list-style-type: none"> • Risk of displacement rather than behavioural change • Strong previous business opposition
<p>Main impacted group</p>	<ul style="list-style-type: none"> • Businesses in the affected area • People working for businesses in the affected area 	<ul style="list-style-type: none"> • All drivers in charging area 	<ul style="list-style-type: none"> • All drivers needing to park. Does not impact through traffic (except potentially where affected by increased queues for car parks caused by limited parking) 	<ul style="list-style-type: none"> • All drivers of vehicles that attract the T-charge 	<ul style="list-style-type: none"> • All drivers in affected area
<p>Implementation timeframe</p>	<ul style="list-style-type: none"> • 18-24 months, including business consultation 	<ul style="list-style-type: none"> • c.3 years, including statutory consultation 	<ul style="list-style-type: none"> • Subject to City decision-making 	<ul style="list-style-type: none"> • c.3 years, including statutory consultation 	<ul style="list-style-type: none"> • 18-24 months, including business consultation

Appendix 6: Example questions for a public engagement process

This appendix sets out preliminary examples of the questions we might ask as part of the conversation. These would be refined following any decision to proceed with the engagement, including an independent QA.

- Which of the following would make you more like to use PT?
 - Faster journey times
 - More reliable journey times
 - Increased service frequency
 - Lower fares
- If the GCP raised money to spend on public transport improvements, what should we spend it on to best improve travel in and around Cambridge?
- What sources of revenue should we be looking at to improve public transport?
- In your opinion, how serious is the impact of congestion in and around Cambridge?
- To reduce congestion, I would prioritise a solution that:
 - Improves air quality
 - Enables faster public transport
 - Makes public transport more reliable
 - Means cheaper fares on public transport
 - Creates more space for pedestrians and cyclists
 - Speeds up my journey times when travelling by car, even if at a cost
 - Still allows me to drive into and around the city, even if at a cost
 - Targets those driving at the busiest times
- Would you support limiting vehicle access to some streets if it reduced congestion and/or created more pleasant streets?
- Would you support an increased parking charge if:
 - The money was used to provide world class public transport
 - Attractive alternatives were in place to using the car
 - Overall journey times through and into Cambridge decreased
 - There were more residents parking zones
- Would you support a workplace parking levy if:
 - The money was used to provide world class public transport
 - Attractive alternatives were in place to using the car
 - Overall journey times through and into Cambridge decreased
- Would you support an intelligent charge if:
 - The money was used to provide world class public transport
 - Attractive alternatives were in place to using the car
 - It [initially] only affected the most polluting vehicles
 - Overall journey times through and into Cambridge decreased
 - If it was only payable when congestion was at its worst
- There are many options for designing a charge, tell us:
 - How much would a charge need to be for you to switch to our improved public transport system?
 - What time(s) of day should a charge apply?
 - Draw the area on a map where you think a charge should apply
 - Should everyone pay the charge? Should there be exemptions/reductions?
- How would each of the options above affect you?
- How do you currently get into/around Cambridge? How many journeys a week so you make into / around Cambridge using the following modes: car, bike, PT etc.
- [If drive] what time(s) do you normally use your car in Cambridge?
- Info on postcode
- Diversity information

Agenda Item 8



HISTON ROAD: BUS, CYCLING AND WALKING IMPROVEMENTS FINAL DESIGN

Report to: Greater Cambridge Partnership Joint Assembly

15th November 2018

Lead Officer: Peter Blake - GCP Transport Director

1. Purpose

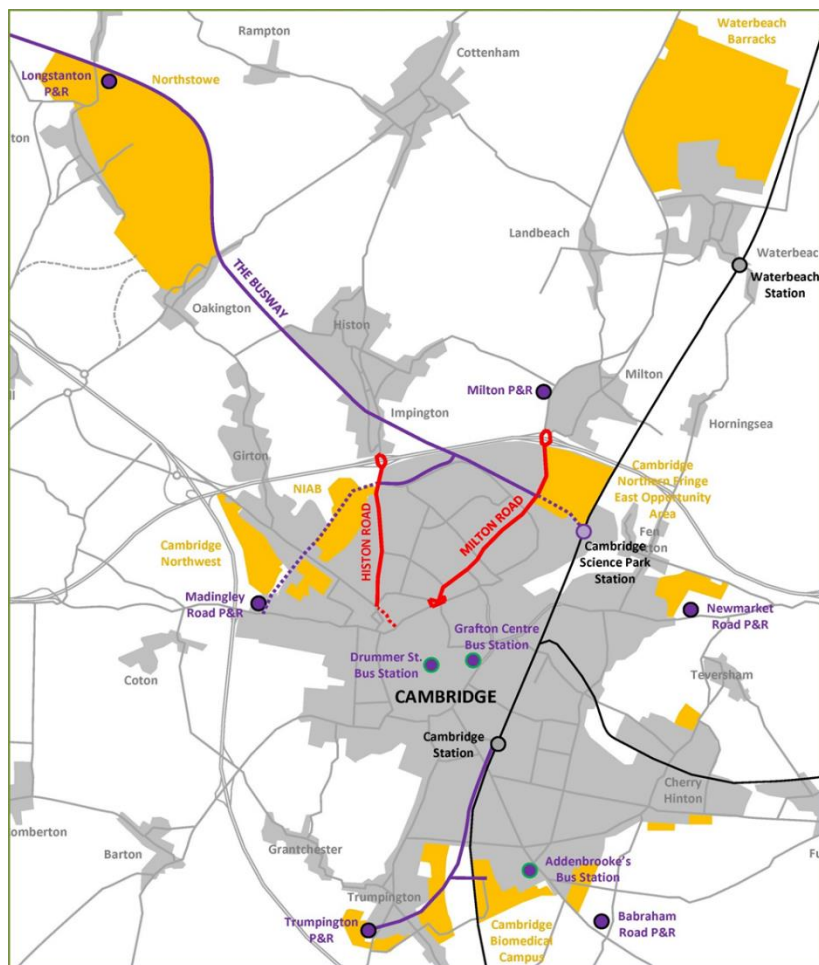
- 1.1. The Histon Road scheme supports the Greater Cambridge Partnership's (GCP's) transport vision of implementing improved public transport routes to encourage more people to use sustainable transport modes instead of the private car. This is a significant part of a wider public transport strategy 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. This report sets out the final design for Histon Road that includes modifications to the previously approved design following public consultation feedback. In developing the final design, the consultant's design team has worked closely with the County Council's road safety, signals, and cycling projects teams to ensure that all aspects 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 Histon Road. These have been developed following further engagement with the Local Liaison Forum (LLF) in October 2018 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 Histon Road under consideration and shows its setting within the wider strategic context. The report considered by the Executive Board on 3rd November 2015 sets out the strategic and planning background, and broader context for the scheme.

Figure 1: Histon Road in the Wider Area Context



- 2.3. In March 2018, the Executive Board approved the preliminary design for Histon Road for public consultation. The consultation took place in the summer of 2018. Consultation leaflets were delivered to over 15,000 houses in north Cambridge and the village of Histon. Three formal consultation events took place that were all well attended. Over 900 responses were received. The consultation analysis report has been published online and is included as a background paper. In summary, all aspects consulted on received more support than opposition. 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. The following paragraphs set out the key changes that have been made and with reasons.

Design Modifications.

Histon Road Junction with Victoria Road.

- 3.2. Modifications to the design focus mainly on the provision for cyclists at this junction. Feedback suggested that the off road cycling provision proposed at the junction of Histon and Victoria Road would only be used by the minority of cyclists with the majority more likely to stay on road due to the longer “green” time afforded, compared to the off road crossing option. The current design addresses these comments by readdressing the balance and providing an improved on road solution at this location, whilst maintaining the ability for cyclists to navigate this area using an off road shared use pavement and crossing.

Victoria Road approach to both Histon Road and Huntingdon Road Junctions

- 3.3. Road safety officers were concerned that the lack of signal control for cyclists within the junction area would potentially place them at conflict with turning vehicles, other cyclists, and pedestrians. The current design addresses this by placing the cycle lanes at carriageway level, thus ensuring cyclists follow the same signal control as vehicles.

Parking Bays, Crossing, Bus Stops and Loading Bay near Cranwell Court

- 3.4. Feedback from the consultation focussed on the importance of maintaining some pay and display parking at this end of Histon Road to support local business. Road safety officers also recommended moving the proposed pedestrian crossing further from the junction to enhance the visibility of the crossing signals to drivers turning into Histon Road from Victoria Road. They also recommended moving the bus stop further from the junction to avoid blocking.
- 3.5. This combined feedback has led to a re-design of how we allocate some of these requirements in this small area. The parking bays have been retained as has the small loading area for the supermarket on the inbound side of Histon Road (denoted by single yellow line and signage). The crossing and the outbound bus stop has been moved further from the junction. With this configuration, there is no space to safely include a new inbound bus stop, instead the current pairing with the inbound bus stop just around the corner on Victoria Road is maintained.

Bus Stops near Linden Close

- 3.6. The bus stops in this location have been re-instated into the design. Feedback from the consultation highlighted the fact that these stops serve many people living in the Benson Road area via the footpath that provides access to Histon Road.

Pedestrian Crossing and Bus Stops near Akeman Street

- 3.7. A new location for a pedestrian crossing near Akeman Street was strongly supported as it provides improved access between the residential areas access by Akeman Street and the shopping areas on Histon Road. However, the very close proximity between this proposed crossing and the proposed (existing) crossing near to the Post Office was raised as an issue.
- 3.8. Following further engagement with the LLF and discussions with road safety officers about the positioning of bus stops in relation to crossing points and junctions in this area, the design has been developed including a new crossing point at the Akeman Street location. In order to locate the crossing in this position, the outbound bus stop has been moved to the

nearest safe location to the Post Office and the nearby proposed floating bus stop has been removed from the design.

Histon Road/Gilbert Road/Warwick Road Junction

- 3.9. The proposed junction design was largely supported through the consultation, although some concern was raised that slightly more width should be provided for cyclists using the on-road option though the junction. Road safety, signals and cycling projects officers also recommended modifications to the design to improve functionality, flexibility, and in particular accessibility for visually impaired pedestrians.
- 3.10. While the principles of the previous junction design are largely retained, modifications seek to incorporate all of the comments received from consultees, and officers. Slightly more space has been afforded to on-road, cyclists. Rather than segregated pedestrian/cycle crossings, the new design includes toucan crossings. This almost halves the number of signal poles required and provides much greater flexibility for cyclists to legally navigate the junction in all directions during the crossing phase. The toucan crossing system requires the surrounding area to be shared use rather than fully segregated. This also follows a strong recommendation from road safety officers.

Crossing near Carisbrooke Road

- 3.11. The public consultation indicated a preference for a new signalised crossing to be located near to Carisbrooke Road. The position of this new crossing is strategically important as it will serve pedestrians and cyclists accessing Histon Road from Darwin Green via a planned link at this location. The new crossing has been included in the current design and requires the proposed bus lane to be shortened slightly as a result.

Footpath Widths

- 3.12. Slight alterations have been made to footpath widths to the north of Gilbert Road in order to ensure a more consistent 1.8m width.

Key Design Considerations

- 3.13. The final technical design is presented in **Appendix B** and key considerations of the scheme are detailed in the following sections of this report.

Junctions

- 3.14. Alternative designs for the 4 main junctions along Histon Road have been considered in detail. This work is supported by detailed traffic modelling in order to assess the benefits or impacts that the proposed designs will have. The modelling work demonstrates that in combination with other City Access proposals, the scheme will improve future journey times and reliability and reduce queuing at each of the key junctions along Histon Road, compared to an alternative 'Do Nothing' scenario of no change. A summary of each junction includes:
- **Victoria Road/Huntingdon Road** – the junction is severely constrained. It is very difficult to significantly modify the junction without affecting traffic flows. However, it has been possible to set out a design that improves the environment for both pedestrians and in particular cyclists, offering some separation from motorised vehicles in the area where there is a current conflict. These benefits seek to be achieved without adverse impact on the ability for traffic (including buses) to flow through what is a busy junction.

- **Gilbert Road** – while the detail has been modified, the design continues to use many aspects of the alternative LLF design which offers significant benefit to cyclists by providing off road facilities in all directions. The design also offers on road advance stop lines for in/outbound commuter cyclists who may prefer to cross the junction on road due to the longer green time.
- **Darwin Green** - the Darwin Green junction will be delivered by the developers and has already gone through a significant planning process. Officers are continuing the dialogue with the consultants/developers to ensure that the final design fits well with and follows the general principles of the proposed Histon Road scheme.
- **Kings Hedges Road** - officers have assessed the Kings Hedges junction and do not propose to make any changes to it aside from improving the cycle lane approach from the A14 junction which can be achieved without affecting the performance of the junction itself with regard to vehicle flows.

Bus Lanes and Bus Stops

- 3.15. A key aim of the project is to enhance bus priority on Histon Road. The design includes a length of inbound bus lane extending from Blackhall Road to a point 40m south of Carisbrooke Road. The bus lane is estimated to improve future inbound bus journey times in the peak by up to 2.5 minutes enhancing reliability of service.
- 3.16. It is intended that implementation of the scheme will look to include bus priority measures at the junctions in the form of bus detection and a subsequent hurry call on the signal sequence. At this stage the benefits from early bus detection at traffic signals have not been built into the traffic model.
- 3.17. The approximate location of existing bus stops has been retained. It is proposed that where width allows the scheme will incorporate floating bus stops. This follows extensive work that has been undertaken by the County Council in developing the design alongside disability groups, cycle campaign groups, and other stakeholders, including an independent study to demonstrate their effectiveness and safety. Where floating bus stops are proposed the designs aim to provide a minimum island width of 2.3m, and in most cases it has been possible to provide up to 2.5m, in order to allow adequate space for wheelchair users to manoeuvre.

Cycling and Walking

- 3.18. The provision of high quality cycling and pedestrian infrastructure is an important objective of this scheme. As well as improvements at junctions, the design includes improved cycle lanes along the length of Histon Road. Where the road is narrower, towards the southern end of the scheme, the aim is to provide an advisory 1.5m wide cycle lane on both inbound and outbound side of the road. The advisory cycle lanes progress into segregated lanes (Cambridge Kerb) as the road widens towards the Gilbert Road junction.
- 3.19. Between Gilbert Road and the Darwin Green junction the aim is to provide up to 2m wide segregated outbound cycle lane (1.5m minimum width in pinch points). On the inbound side of the road a 1.5m cycle path is protected by the bus lane for the majority of its length. The enhanced cycle infrastructure will improve safety and accessibility for cyclists but also address the current situation where vehicular flow is often disrupted due to the proximity of vehicles and cycles.
- 3.20. The aim is to provide 1.8m wide footpaths along the length of the scheme, where current kerb lines allow, with a 1.4m wide minimum in pinch points. Pedestrian improvements also include provision of a new crossing in close proximity to the junction with Victoria Road

(timed with the junction signals so as to not delay buses), as well as formalising a crossing at Carisbrooke Road.

- 3.21. The scheme will include raised tables across the minor residential side roads to improve accessibility for pedestrians.

Removal of On-street Parking

- 3.22. In order to deliver highway improvements in the narrow southern section of Histon Road, it will be necessary to remove the current on street parking. This includes 31 resident parking bays that are part of the Benson Area Residents' Parking Zone (RPZ) and 11 pay and display parking bays. Removal of the on street parking is dependent on the ability to mitigate the impact, therefore, a detailed parking survey was undertaken within the area (the methodology agreed with the LLF in advance). The survey demonstrates that during the mornings and evenings there is sufficient space within the Benson Area RPZ to accommodate the displaced residents parking, created from the proposed removal of parking bays on Histon Road. However it is accepted that there would be a level of inconvenience introduced by this proposal, especially to those residents living directly along Histon Road.
- 3.23. A number of points were raised by local residents and businesses including the requirement for loading, unloading, deliveries and accessibility for disabled people. These points need to be considered in detail when the Traffic Regulation Orders (TROs) are developed. It is planned to address these issues through the use of loading restrictions, along Histon Road, at peak times only.
- 3.24. With regard to the current pay and display bays on Histon Road, officers are working with the County Council's parking team to incorporate new pay and display bays in Linden Close as part of the new Stretton Area RPZ.

Landscape and Environment

- 3.25. The design retains the line of trees running north from Gilbert Road to Carisbrooke Road. Following discussion with the Cambridge City Council arboriculture officer there is an understanding that if roots are damaged during construction there will be a commitment to replace any lost trees. It is worth noting that it will also be possible to retain much of the mature hedgerow to the north of Blackhall Road.
- 3.26. Designs for the four main landscaping opportunity areas were considered at a recent LLF workshop. These locations include Akeman Street junction, Gilbert Road/Warwick Road junction, and the junctions with Brownlow Road and Blackhall Road. A landscaping mitigation measure has also been set out to provide a new high fence and planting between Brownlow Road and Blackhall Road, replacing the existing hedgerow that currently screens a number of gardens on the outbound side of the road. The designs are set out in **Appendix A** alongside the landscape strategy for Histon Road.

Cost Benefit.

- 3.27. 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 1.6 to 2.9.
- 3.28. The approximate current day capital cost for the preliminary concept design is estimated to be £6 million as reported to the March 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 as set out below:

January 2019	Commence Detailed Design
July 2019	Detailed Design Complete
August 2019	Appoint Contractor
Autumn 2019	Executive Board decision to award and commence construction contract
Autumn 2019	Commence Construction
Autumn 2020	Scheme Complete – this is the subject of further timetabling work

List of Appendices

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

Background Papers

Title	Link
Executive Board agenda and minutes Nov 2015	http://scambs.moderngov.co.uk/ieListDocuments.aspx?CId=1074&MIId=6537&Ver=4
Executive Board agenda and minutes Jun 2016	http://scambs.moderngov.co.uk/ieListDocuments.aspx?CId=1074&MIId=6632&Ver=4
Executive Board agenda and minutes Nov 2017	http://scambs.moderngov.co.uk/ieListDocuments.aspx?CId=1074&MIId=6858&Ver=4
Executive Board agenda and minutes Mar 2018	http://scambs.moderngov.co.uk/ieListDocuments.aspx?CId=1074&MIId=7175&Ver=4
2018 Consultation Analysis Report	https://citydeal-live.storage.googleapis.com/upload/www.greatercambridge.org.uk/transport/transport-projects/Histon%20Road%20report%20v2.pdf



Greater Cambridge Partnership

HISTON ROAD

Landscape Strategy





Greater Cambridge Partnership

HISTON ROAD

Landscape Strategy

TYPE OF DOCUMENT (VERSION) PUBLIC

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OUR REF. NO. 181105-AJC**

DATE: NOVEMBER 2018

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QUALITY CONTROL

Issue/revision	First issue
Remarks	
Date	5 th November 2018
Prepared by	Andy Cocks
Signature	Andrew Cocks <small>Digitally signed by Andrew Cocks Date: 2018.11.05 16:10:15 Z</small>
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2	INTERVENTION AREAS	3
	Crossroads At Gilbert Road And Warwick Road – A Gateway	3
	The Junction Of Akeman Street – A Green Oasis (With Sound Track)	3
	The Junctions Of Brownlow Road And Blackhall Road – Birch Trees	4
	The Linear Strip Of Land Opposite Hazelwood Close – A Green Corridor	5
	Gilbert Close Junction	5
3	CONCLUSION	6

1 INTRODUCTION

This landscape strategy 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 September and October 2018;
- Relevant precedent streetscape studies in Cambridge and the Southeast of England; and
- Feedback received at the Histon Road Local Liaison Forum (HRLLF) workshop (8th October 2018).

The preliminary design put forward for public consultation sought to compensate for tree removal through replacement planting elsewhere on Histon Road to achieve neutrality the same net quantity of trees. In subsequent design development, working alongside council officers, the potential for a varying of this strategy by using large trees to achieve biodiversity net gain has been explored in accordance with the council's Tree Strategy 2016 to 2026. The principle of net gain goes further than neutrality and aims to provide a greater total quantum of biodiversity when comparing the existing situation with the proposed scenario.

The following simple net gain calculation based on mature tree canopy size was set out at the HRLLF workshop and was well received in principle:

- Existing small species trees have an average mature canopy size of 3 metre radius which equates to a volume of 113 m³ (assuming a spherical canopy).
- Proposed medium species trees with a mature 6 metre crown radius = 905 m³ = 8 small trees.
- Proposed large species trees with a mature 10 metre crown radius = 3142 m³ = three medium or 27 small trees.

It is therefore proposed to follow this approach where appropriate. Table 1 below sets out the biodiversity net gains envisaged for Histon Road given the proposed strategy rather than the previously proposed tree neutrality.

Table 1: Biodiversity Net Gain Calculation

	Year 1	Year 10	Year 20	Year 50
Tree neutral strategy	-593 m ³	-804 m ³	-715 m ³	0 m ³
Proposed strategy	-450 m ³	6 m ³	4010 m ³	40073 m ³
Difference between proposed strategy and tree neutral	143 m³	810 m³	4725 m³	40073 m³

The landscape strategy appendix is supported by 7 no. A3 illustrations as follows:

- Figure 1: Akeman Street - Concept Plan and Visualisation
- Figure 2: Akeman Street - Rain Garden Details
- Figure 3: Gilbert Road Warwick Road - Concept Plan and Cross Sections
- Figure 4: Gilbert Road Warwick Road - Visualisation
- Figure 5: Brownlow Road and Blackhall Road - Concept Plan

- Figure 6: Land opposite Hazelwood Close – Before and After Cross Sections
- Figure 7: Material and Planting Palette

2 INTERVENTION AREAS

The following streetscape strategies have been identified for each of the Intervention Areas along Histon Road. The first four of which were considered at the HRLLF.

Crossroads at Gilbert Road and Warwick Road – A Gateway

The principal design objective is to enhance streetscape character by providing a new tree planting design which includes large species with an open canopy. Selected existing small tree species will be replaced to achieve long term environmental, social and economic benefits including biodiversity, improved air quality and reduced surface water runoff.

Tree planting, maintenance and management will be in accordance with industry best practice to ensure tree health and allow the most successful specimens to become a characterising influence and locally distinctive. The trees will cast light shade in summer months and benches will be provided to encourage passive recreation beneath. Benches will be robust enough to withstand vandalism, have wooden seats and backrests and be orientated towards Histon Road.

The mature canopy will be a prominent feature and will form a gateway to celebrate the transition between suburban and urban Cambridge. Existing views towards the Langham House landmark building on the north-east corner of the junction will be retained, enhanced and framed by crown-lifting the proposed trees as they mature. The ground beneath the trees will be grassed where possible to maintain the existing green character, providing amenity value and facilitating surface water infiltration and irrigation for the trees.



Plate 1: Photograph showing the existing situation at Langham House. The existing mature Sorbus (whitebeam) is proposed to be removed and replaced with two much larger species trees.

The Junction of Akeman Street – A Green Oasis (With Sound Track)

The primary objective is to build on the opportunity afforded by high footfall to local shops and the bus-stop by taking up the asphalt and replacing with soft landscape elements, benches and play equipment to provide recreational and amenity value.

The design proposes several new medium sized trees to replace the two existing very poor-quality specimens. The replacement trees will cast light shade in summer months and benches will be located so that there are options to sit in either sun or shade. Benches will be robust enough to withstand vandalism, have wooden seats, central arm and backrest and be orientated to deter overlooking of Akeman House, 194 and 196 Histon Road.

The soft landscape areas will be redesigned as slightly sunken rain gardens with a bioretention function. Low level, low maintenance planting will be provided to improve air quality and provide amenity value for all seasons. Herbaceous plants, grasses, evergreen structural shrubs, groundcover and wildflower seeding will be included. The planting / seeding mix will be adapted every five years in response to the changing light conditions beneath the tree canopies and the competition for water and nutrients as tree roots grow.

Adaptive management will be used to ensure any planting or seeding which consistently fails to thrive is replaced with a suitable soft landscape treatment. Bare ground susceptible to footfall and subsequent compaction / erosion will be avoided.

Interpretation such as signage could also be provided in this area subject to further consultation with local residents. This could focus on the Roman heritage of Akeman St. or the principles of water sensitive design employed in the design of the wider area.

The proposed colour palette for hard landscape materials is warm tones such as ochre and light brown. Sandstone and/or clay paviours will be provided in discreet areas of hard landscape related to desire lines, seating, and play equipment. A 'Dance Chime' small piece of play equipment is proposed to provide a pleasant and unique ad-hoc activity that will encourage informal social use of the space and make it memorable.



Plate 2: Photograph showing the existing situation at Akeman House. The existing declining tree (next to the bins) in hard landscape is proposed to be replaced with three much larger species trees, seating and a rain garden.

The Junctions of Brownlow Road and Blackhall Road - Birch Trees

The design team and the HRLLF agreed that the existing mature birch trees in grassed areas are in reasonable condition and provide suitable character and sufficient benefit to the local area. Removal of

three mature birch trees at Blackhall Road is proposed to accommodate the bus, cycle and walking improvements. In this location at least one replacement birch tree will be planted.

The Linear Strip of Land Opposite Hazelwood Close - A Green Corridor

The proposed solution in this area is to replace the overgrown hedgerow with a new fence within highway land. The fence will sit adjacent to the existing residential property boundary fencing and will be steel mesh. Planting of non-vigorous species are to be grown up the fence. Species selection will include a proportion of evergreens, climbers and flowering plants.

The proposed fence would be up to 1.8 m in height and the planting will be maintained / cut to around 2 m in height to ensure sufficient privacy for properties backing onto the road whilst minimising overshadowing. As well as softening the fence, the planting will be designed to minimise cost and frequency of maintenance, and will also provide year-round visual interest. This type of planting will have negligible impact on adjacent garden planting, and will also benefit air quality and biodiversity.

There is potential to involve an artist in the detailed design of this area to provide a repeating or rhythmic element throughout the length of the planting.

Gilbert Close Junction

The strategy for Gilbert Close was not discussed at the HRLLF. At least one additional medium or large sized tree will be provided here. The surfacing will remain as grass.

3 CONCLUSION

The proposed interventions set out above have been developed in conjunction with relevant parties. The primary objective to provide sustainable environmental enhancement via streetscape design has been met. The long-term vision is for the proposed large trees to thrive and provide a lasting 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.

The next step is for the landscape proposals to be developed in conjunction with officers and other relevant technical specialists including civil engineers, lighting, drainage and arboriculture. The landscape designs will involve underground clash detection between existing and proposed concrete foundations, drainage, services and tree roots. The final tree planting details will be bespoke solutions at individual locations to ensure the proposals are as sustainable and coordinated as possible.



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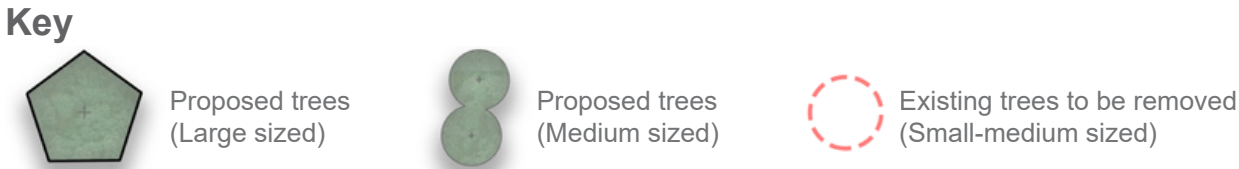
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The Junction of Akeman Street – A Green Oasis (with sound track)

Sheet 1 of 2 - Concept Plan and Visualisation



OBJECTIVE: build on the opportunity afforded by high footfall to local shops and the bus-stop by providing a new crossing, taking up the asphalt and replacing with soft landscape elements, benches and play equipment to provide recreational and amenity value. Refer to Figure 2 for details of the proposed Rain Gardens.



CONCEPT PLAN - Rain Gardens with New / Replacement Tree Planting



VISUALISATION - viewing north-east towards Akeman Street

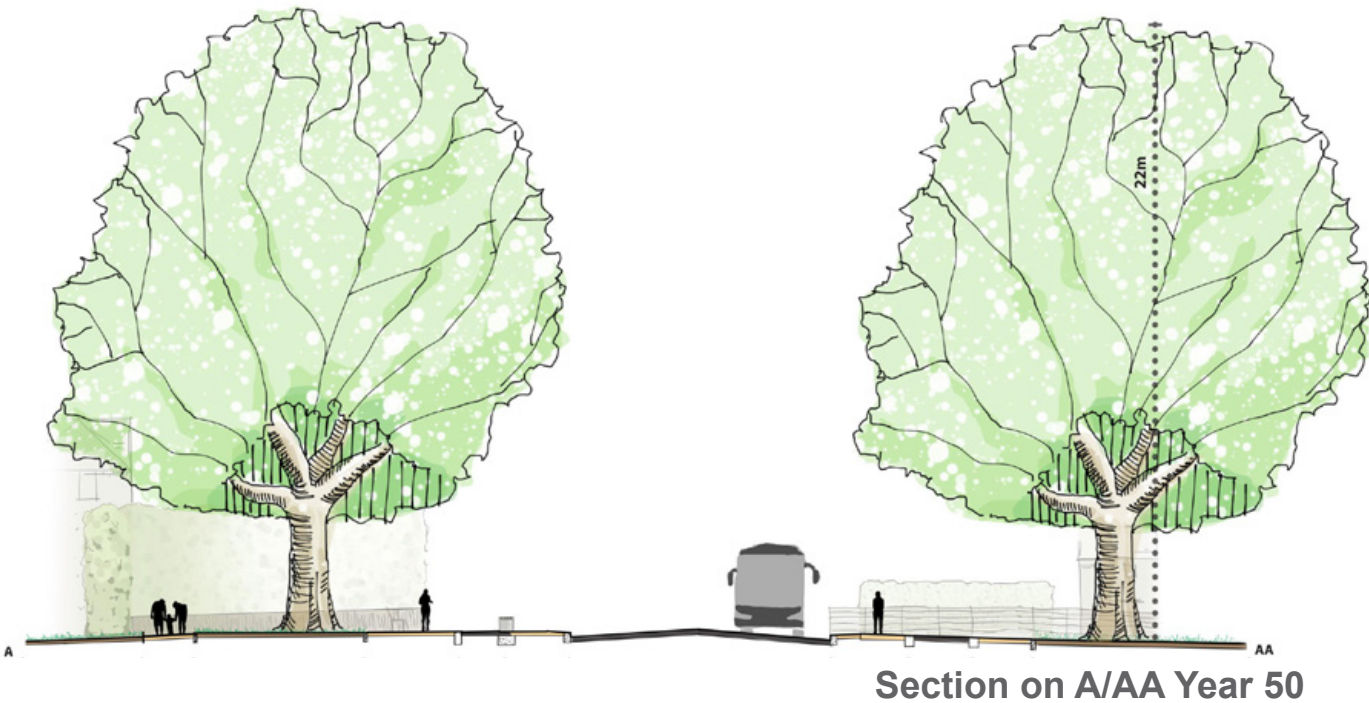
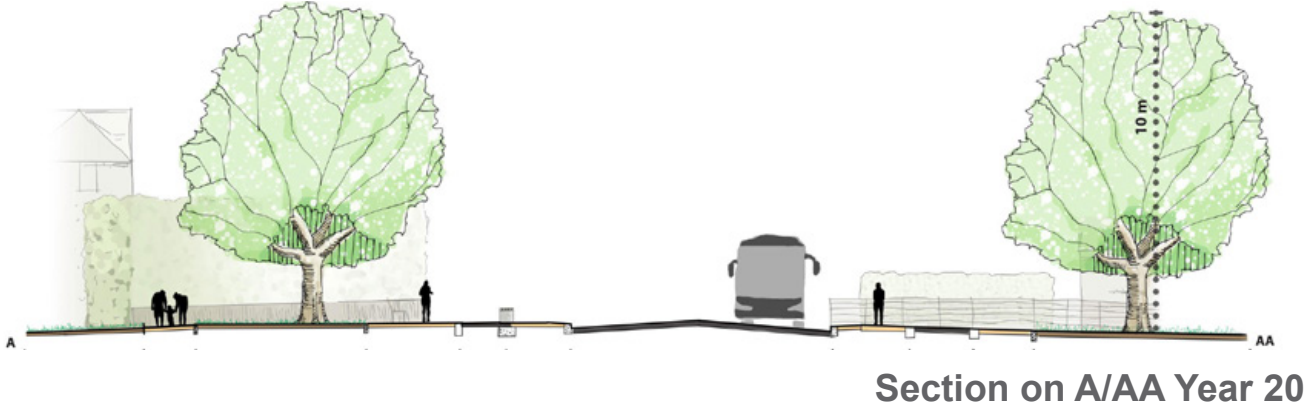
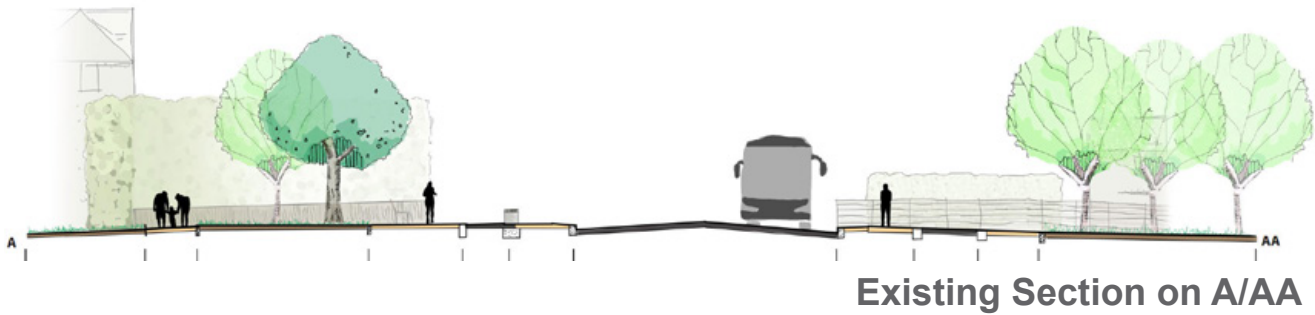
VISUALS TO FOLLOW

Crossroads At Gilbert Road And Warwick Road – A Gateway Sheet 1 of 2: Concept Plan and Cross Sections

OBJECTIVE: enhance streetscape character by providing a new tree planting design which includes large species with an open canopy. Selected existing small tree species will be replaced to achieve long term environmental, social and economic benefits including biodiversity, improved air quality and reduced surface water runoff.



CONCEPT PLAN - New / Replacement Tree Planting



HISTON ROAD LANDSCAPE STRATEGY

Figure 3

VISUALS TO FOLLOW

VISUALS TO FOLLOW

VISUALS TO FOLLOW

Material and Planting Palette

Shrub Planting:



Cornus alba 'sibirica'



Cornus sanguinea
'midwinter fire'



Hypericum x hidcotense
'Hidcote'

Evergreen Groundcover:



Pachysandra terminalis
'Green Carpet'

Flowering Perennials



Geranium 'Orion'



Lysimachia punctata



Veronica longifolia

Grasses:



Miscanthus sinensis
'Zebrinus'



Calamagrostis x
acutiflorus
'Karl Foerster'



Panicum virgatum
'Rehbraun'



Deschampsia cespitosa

Surface Materials:



Scoutmoor Yorkstone
Paving



Tegula Cobbles



Clay Paviers

Seating



Broxap Parkgate Bench

Trees:



Platanus x hispanica



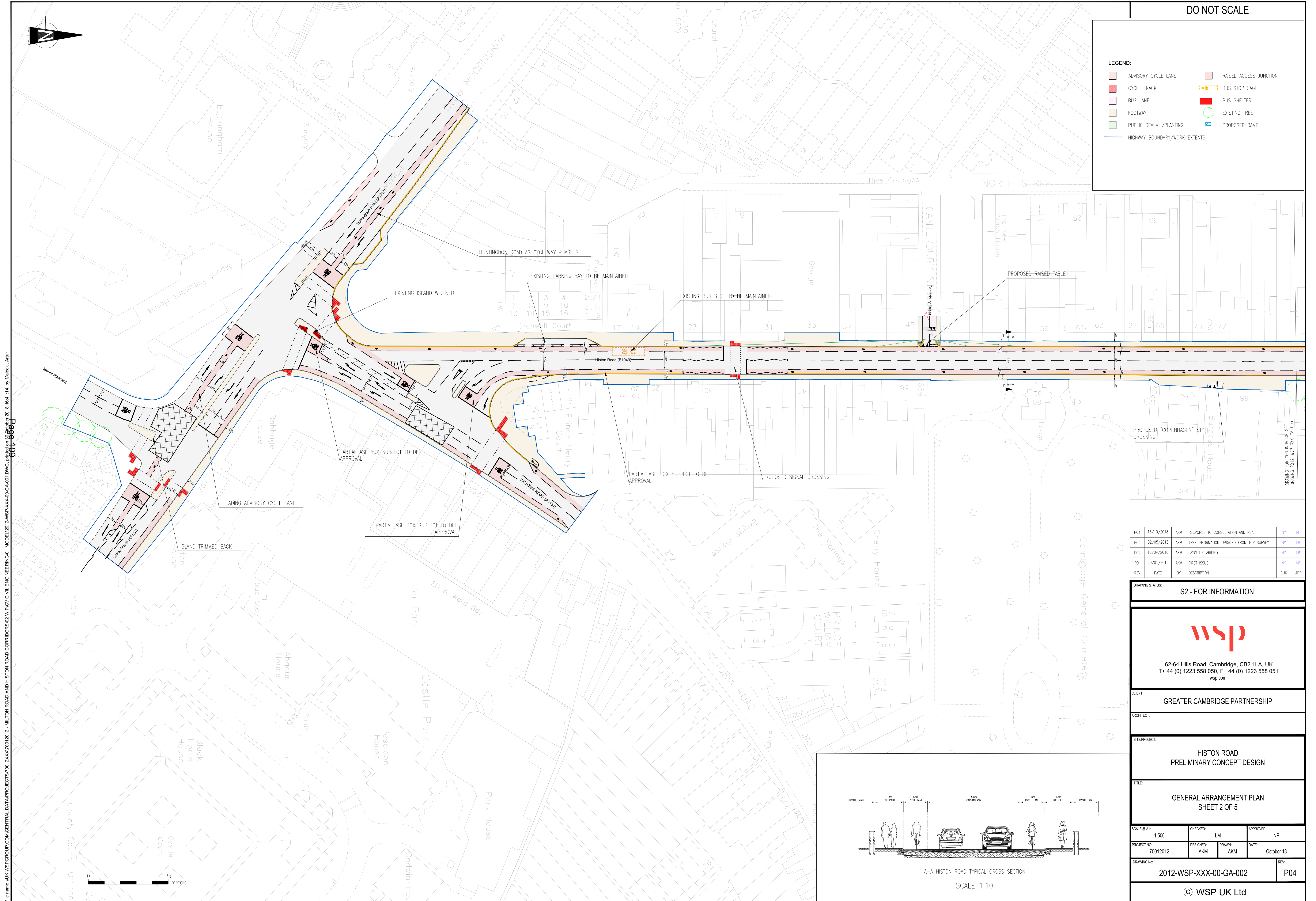
Liriodendron tulipifera



Betula ermanii

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DO NOT SCALE

- LEGEND:
- ADVISORY CYCLE LANE
 - CYCLE TRACK
 - BUS LANE
 - FOOTWAY
 - PUBLIC REALM /PLANTING
 - HIGHWAY BOUNDARY/WORK EXTENTS
 - RAISED ACCESS JUNCTION
 - BUS STOP CAGE
 - BUS SHELTER
 - EXISTING TREE
 - PROPOSED RAMP

P04	16/10/2018	AKM	RESPONSE TO CONSULTATION AND RSA	NP	NP
P03	02/05/2018	AKM	TREE INFORMATION UPDATED FROM TOP SURVEY	NP	NP
P02	16/04/2018	AKM	LAYOUT CLARIFIED	NP	NP
P01	29/01/2018	AKM	FIRST ISSUE	NP	NP
REV	DATE	BY	DESCRIPTION	CHK	APP

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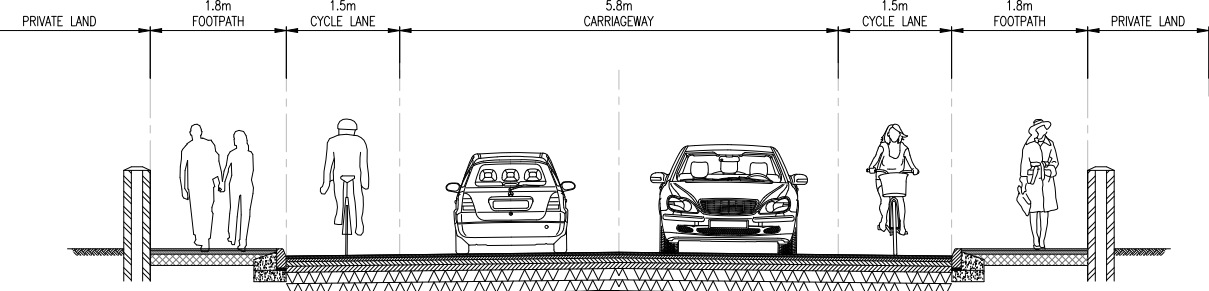
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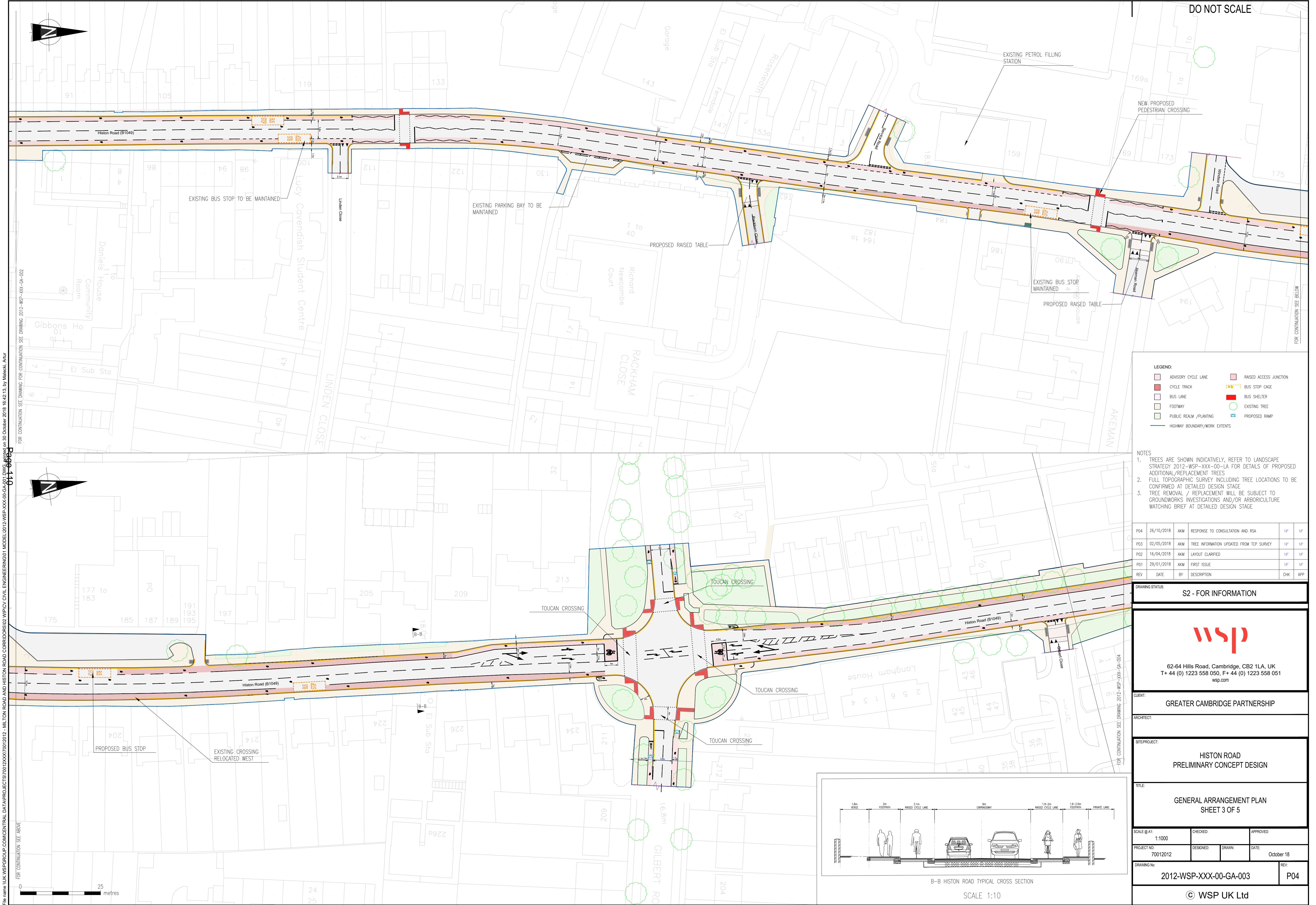
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A-A HISTON ROAD TYPICAL CROSS SECTION

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- BUS SHELTER
- EXISTING TREE
- PROPOSED RAMP
- HIGHWAY BOUNDARY/WORK EXTENTS

NOTES

- TREES ARE SHOWN INDICATIVELY; REFER TO LANDSCAPE STRATEGY 2012-WSP-XXX-00-LA FOR DETAILS OF PROPOSED ADDITIONAL/REPLACEMENT TREES
- FULL TOPOGRAPHIC SURVEY INCLUDING TREE LOCATIONS TO BE CONFIRMED AT DETAILED DESIGN STAGE
- TREE REMOVAL / REPLACEMENT WILL BE SUBJECT TO GROUNDWORKS INVESTIGATIONS AND/OR ARBORICULTURE WATCHING BRIEF AT DETAILED DESIGN STAGE

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P02	16/04/2018	AKM	LAYOUT CLARIFIED	NP	NP
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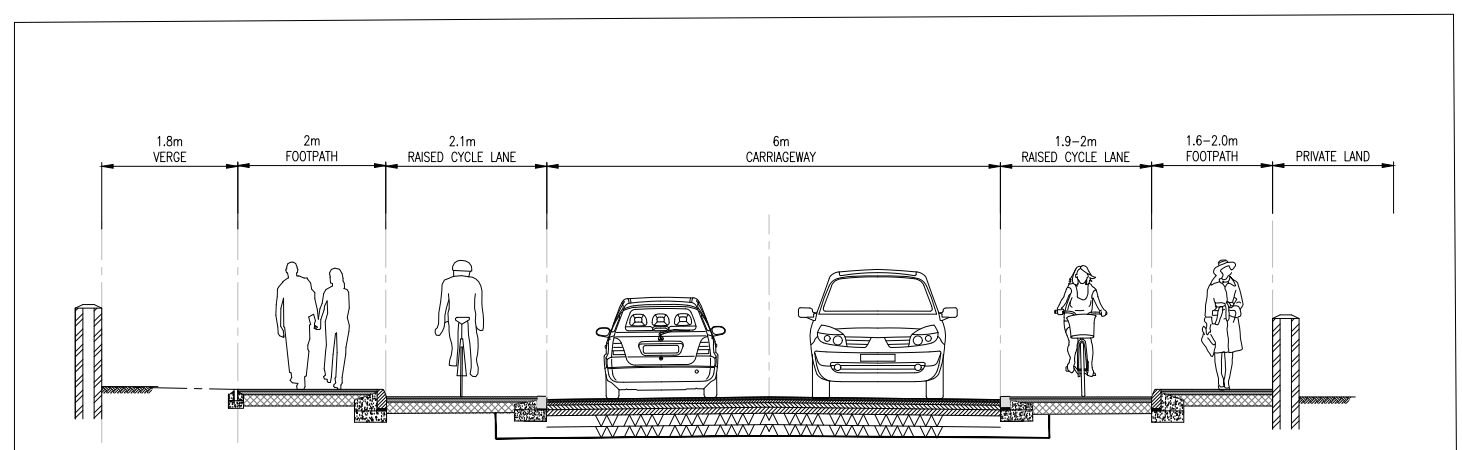
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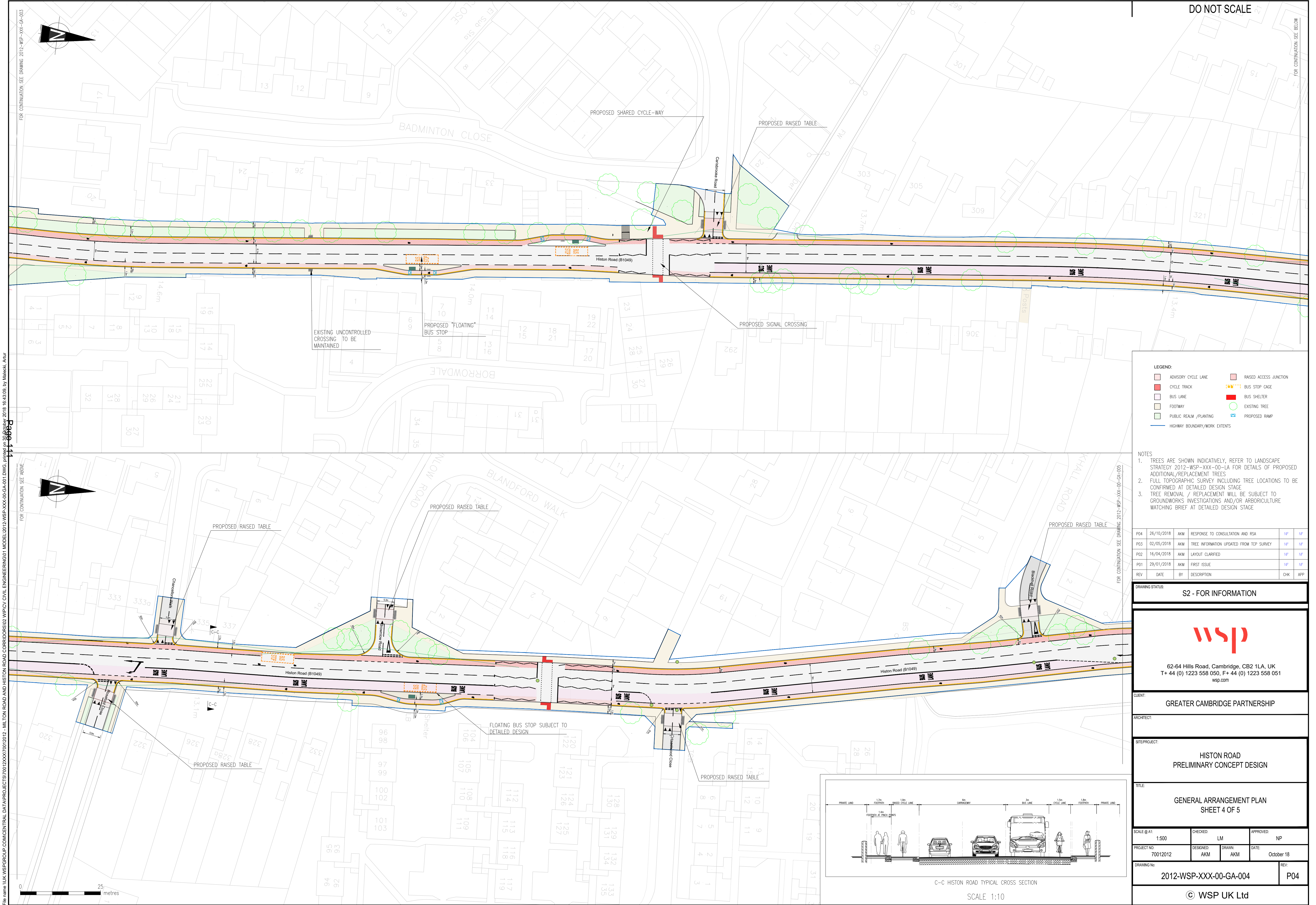
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B-B HISTON ROAD TYPICAL CROSS SECTION

SCALE 1:10



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- BUS LANE
- FOOTWAY
- PUBLIC REALM /PLANTING
- RAISED ACCESS JUNCTION
- BUS STOP CAGE
- BUS SHELTER
- EXISTING TREE
- PROPOSED RAMP
- HIGHWAY BOUNDARY/WORK EXTENTS

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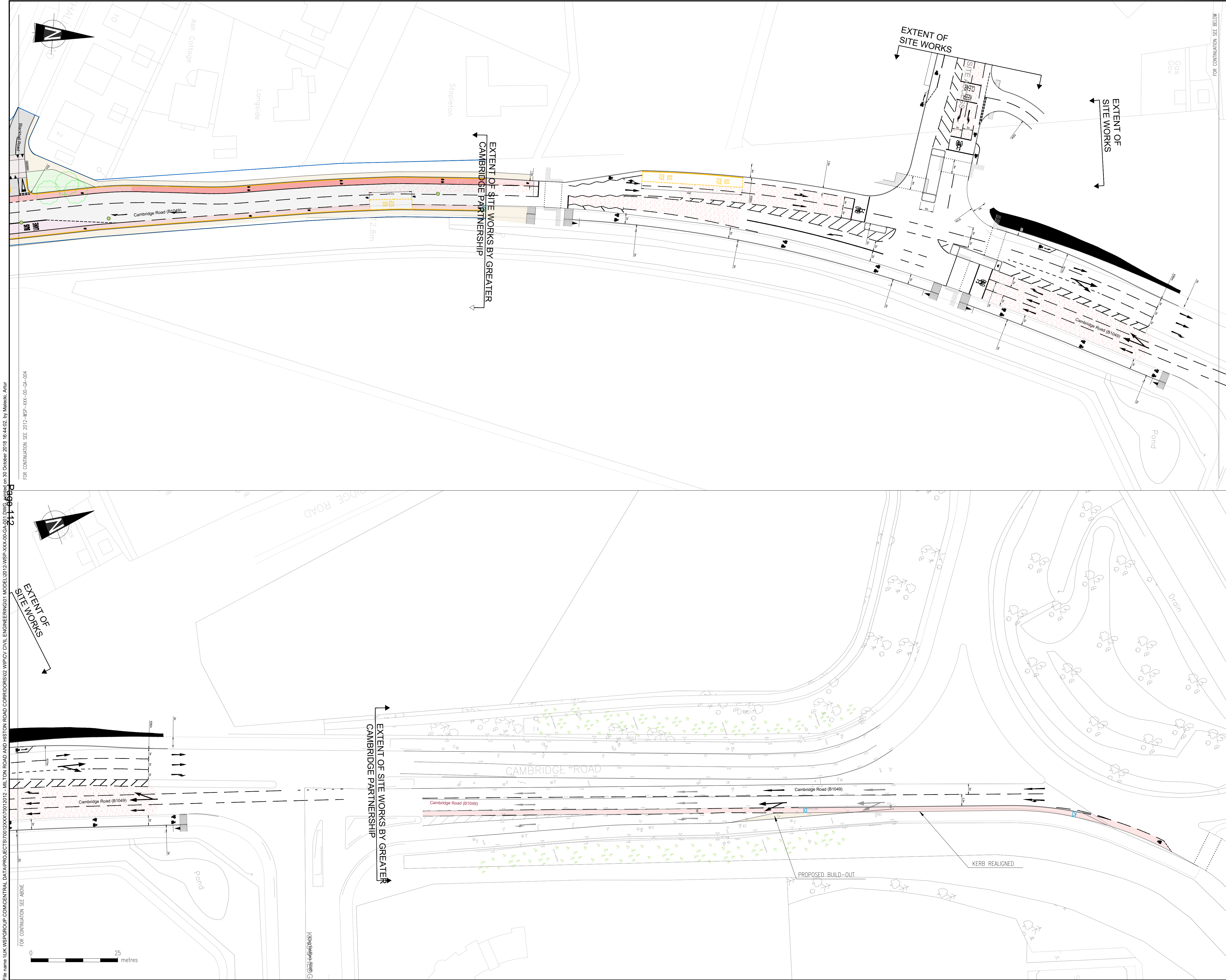
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BUS LANE

FOOTWAY

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RAISED ACCESS JUNCTION

BUS STOP CAGE

BUS SHELTER

EXISTING TREE

PROPOSED RAMP

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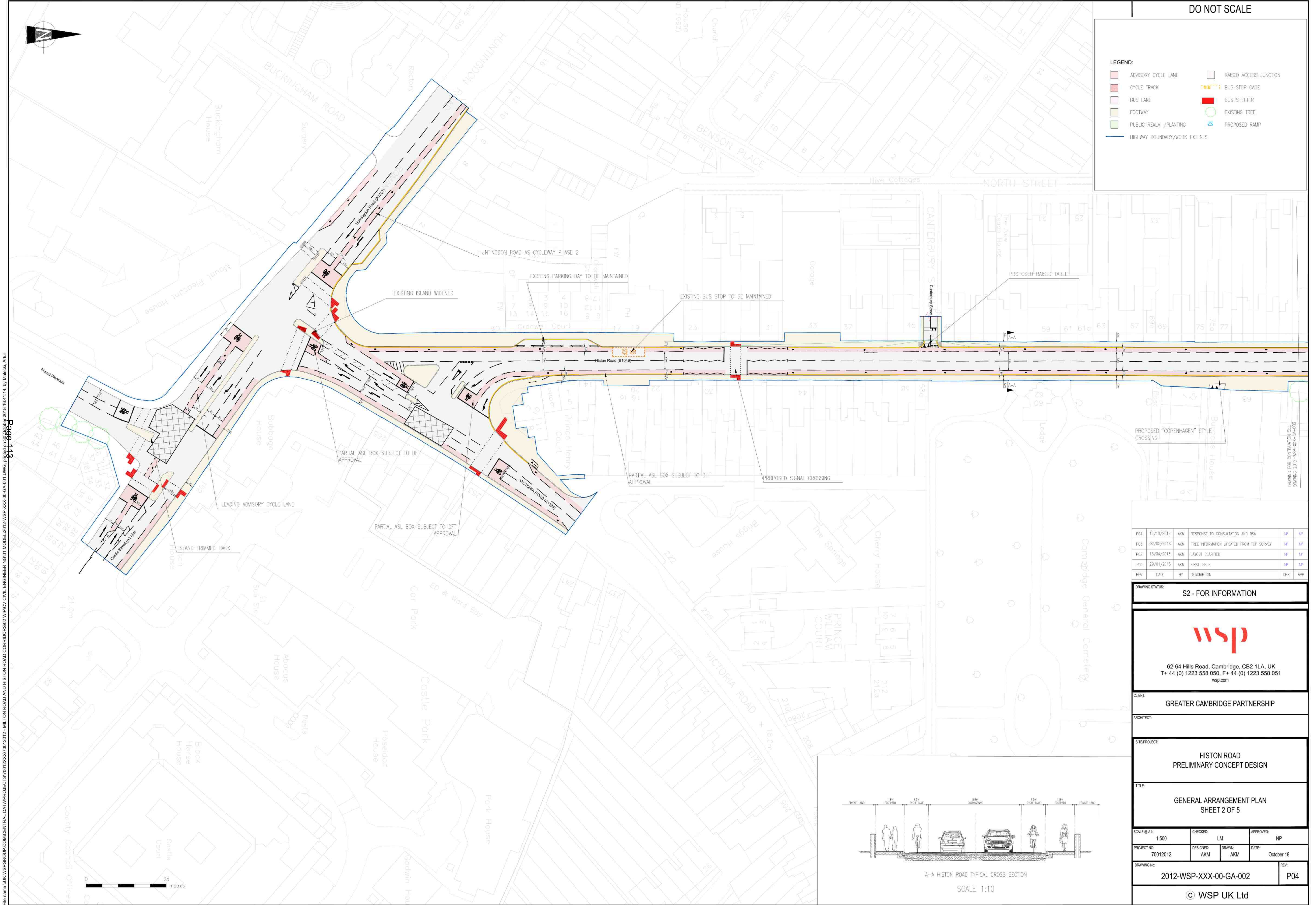
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GENERAL ARRANGEMENT PLAN
SHEET 5 OF 5

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PROJECT NO: 70012012	DESIGNED: AKM	DRAWN: AKM
DATE: October 18		REV: P04

DRAWING NO:
2012-WSP-XXX-00-GA-005

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Page 112
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FOR CONTINUATION SEE ABOVE



DO NOT SCALE

LEGEND:

ADVISORY CYCLE LANE

CYCLE TRACK

BUS LANE

FOOTWAY

PUBLIC REALM /PLANTING

HIGHWAY BOUNDARY/WORK EXTENTS

RAISED ACCESS JUNCTION

BUS STOP CAGE

BUS SHELTER

EXISTING TREE

PROPOSED RAMP

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P02	16/04/2018	AKM	LAYOUT CLARIFIED	NP	NP
P01	29/01/2018	AKM	FIRST ISSUE	NP	NP
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS:

S2 - FOR INFORMATION

62-64 Hills Road, Cambridge, CB2 1LA, UK
T+ 44 (0) 1223 558 050, F+ 44 (0) 1223 558 051
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CLIENT:

GREATER CAMBRIDGE PARTNERSHIP

ARCHITECT:

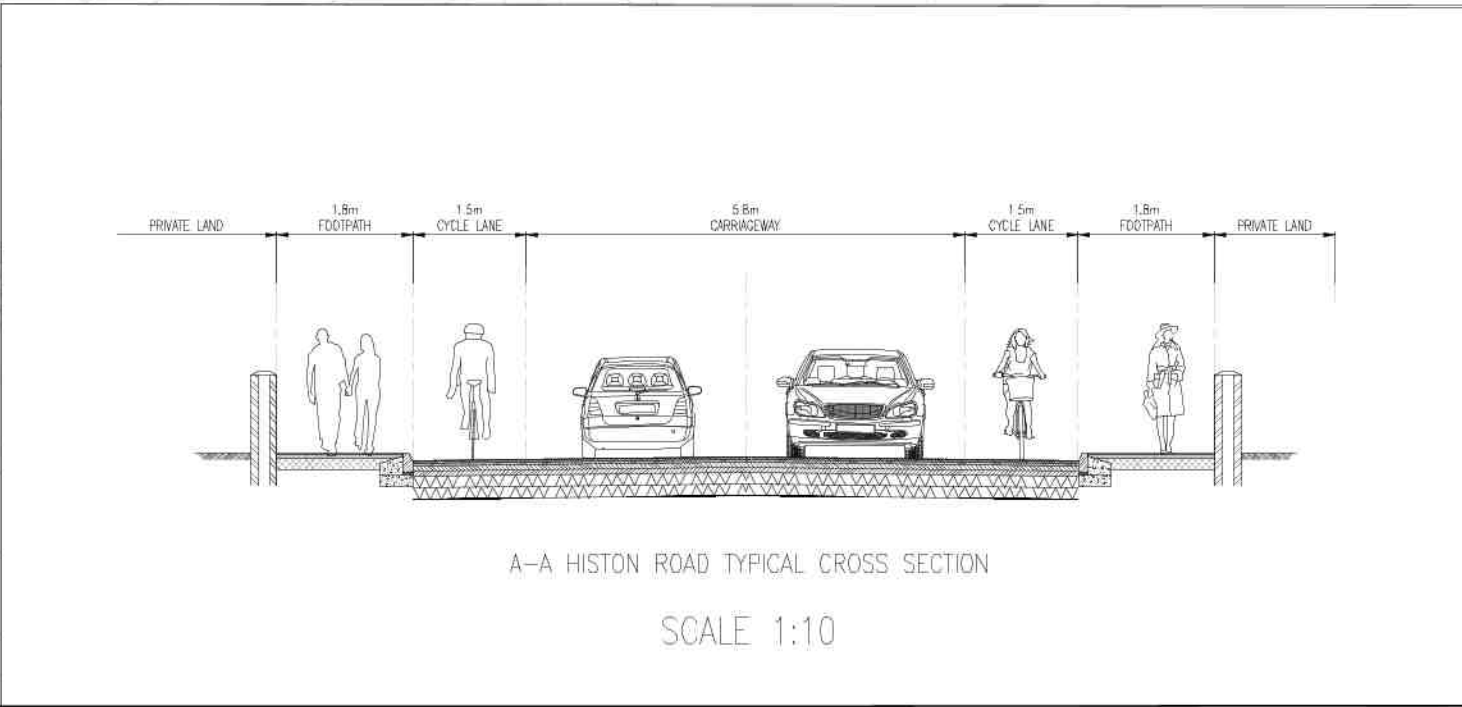
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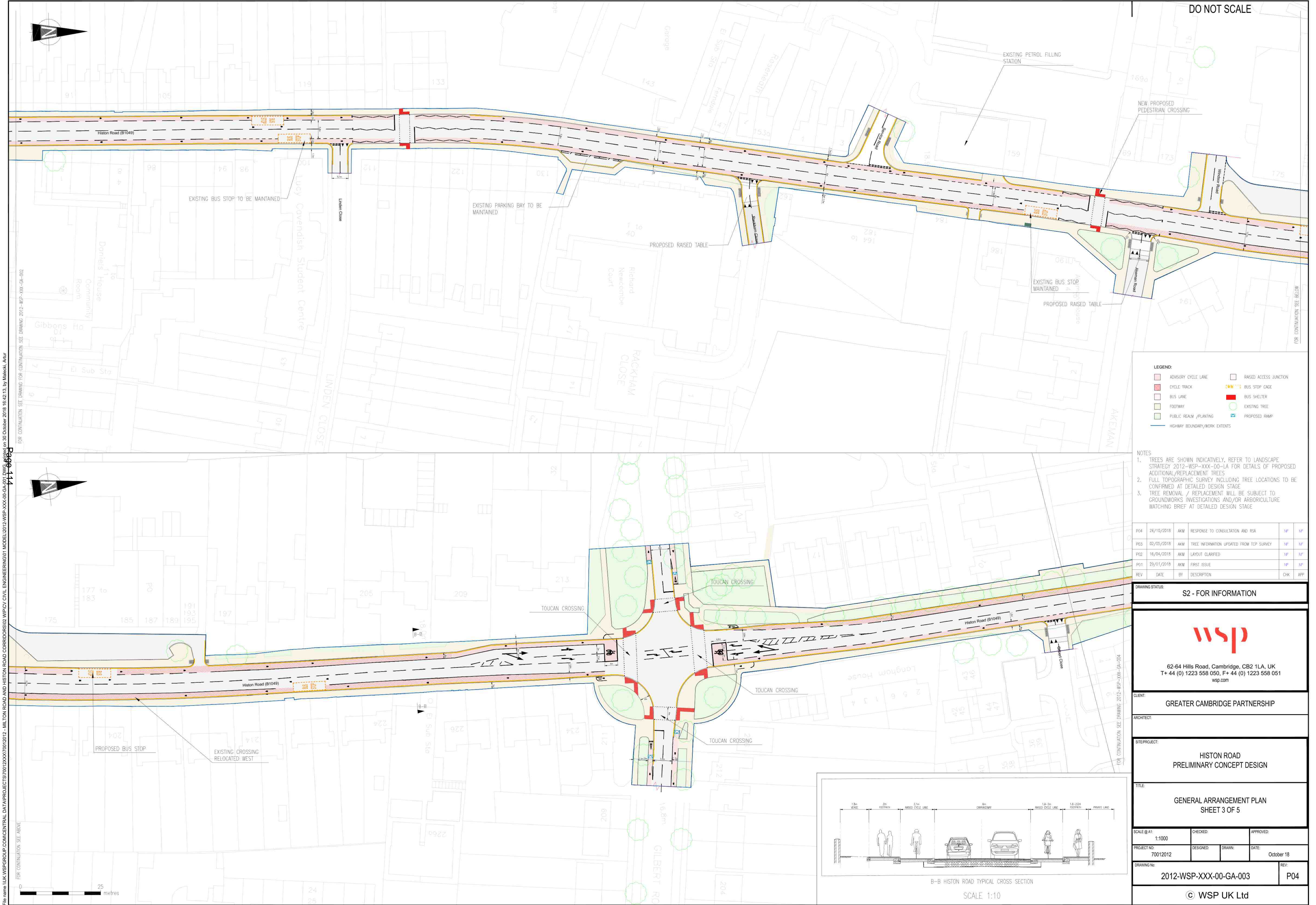
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PRELIMINARY CONCEPT DESIGN

TITLE:

GENERAL ARRANGEMENT PLAN
SHEET 2 OF 5

SCALE @ A1:	1:500	CHECKED:	LM	APPROVED:	NP
PROJECT NO:	70012012	DESIGNED:	AKM	DRAWN:	AKM
DRAWING NO:	2012-WSP-XXX-00-GA-002	DATE:	October 18	REV:	P04
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DO NOT SCALE

LEGEND:

- ADVISORY CYCLE LANE
- CYCLE TRACK
- BUS LANE
- FOOTWAY
- PUBLIC REALM /PLANTING
- RAISED ACCESS JUNCTION
- BUS STOP CAGE
- BUS SHELTER
- EXISTING TREE
- PROPOSED RAMP
- HIGHWAY BOUNDARY/WORK EXTENTS

NOTES

- TREES ARE SHOWN INDICATIVELY, REFER TO LANDSCAPE STRATEGY 2012-WSP-XXX-00-LA FOR DETAILS OF PROPOSED ADDITIONAL/REPLACEMENT TREES
- FULL TOPOGRAPHIC SURVEY INCLUDING TREE LOCATIONS TO BE CONFIRMED AT DETAILED DESIGN STAGE
- TREE REMOVAL / REPLACEMENT WILL BE SUBJECT TO GROUNDWORKS INVESTIGATIONS AND/OR ARBORICULTURE WATCHING BRIEF AT DETAILED DESIGN STAGE

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P02	16/04/2018	AKM	LAYOUT CLARIFIED	NP	NP
P01	29/01/2018	AKM	FIRST ISSUE	NP	NP
REV	DATE	BY	DESCRIPTION	CHK	APP

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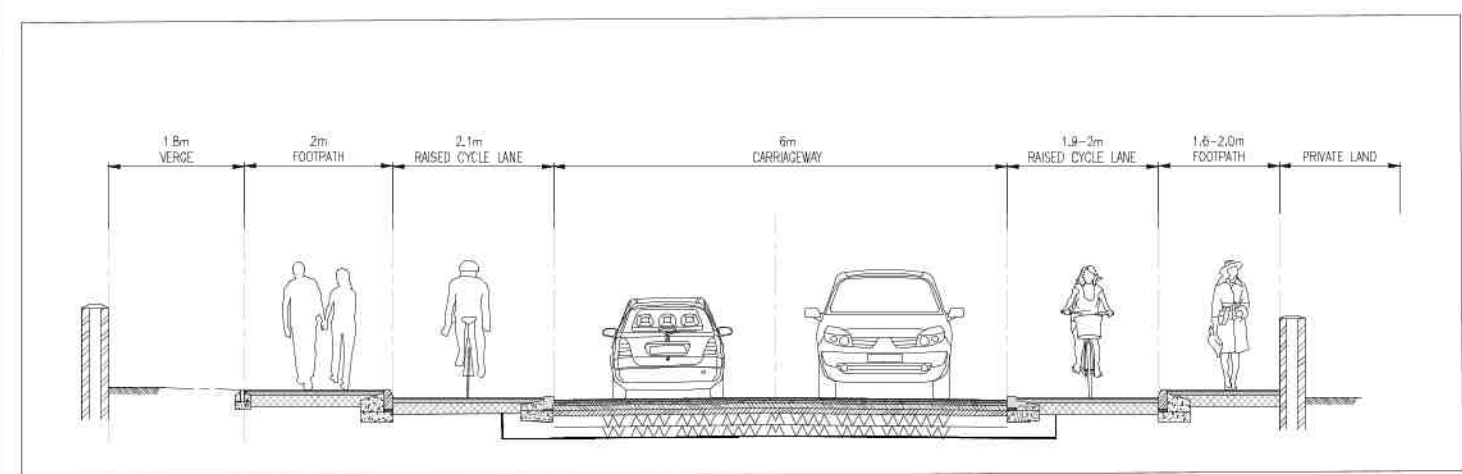
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PRELIMINARY CONCEPT DESIGN

TITLE: GENERAL ARRANGEMENT PLAN
SHEET 3 OF 5

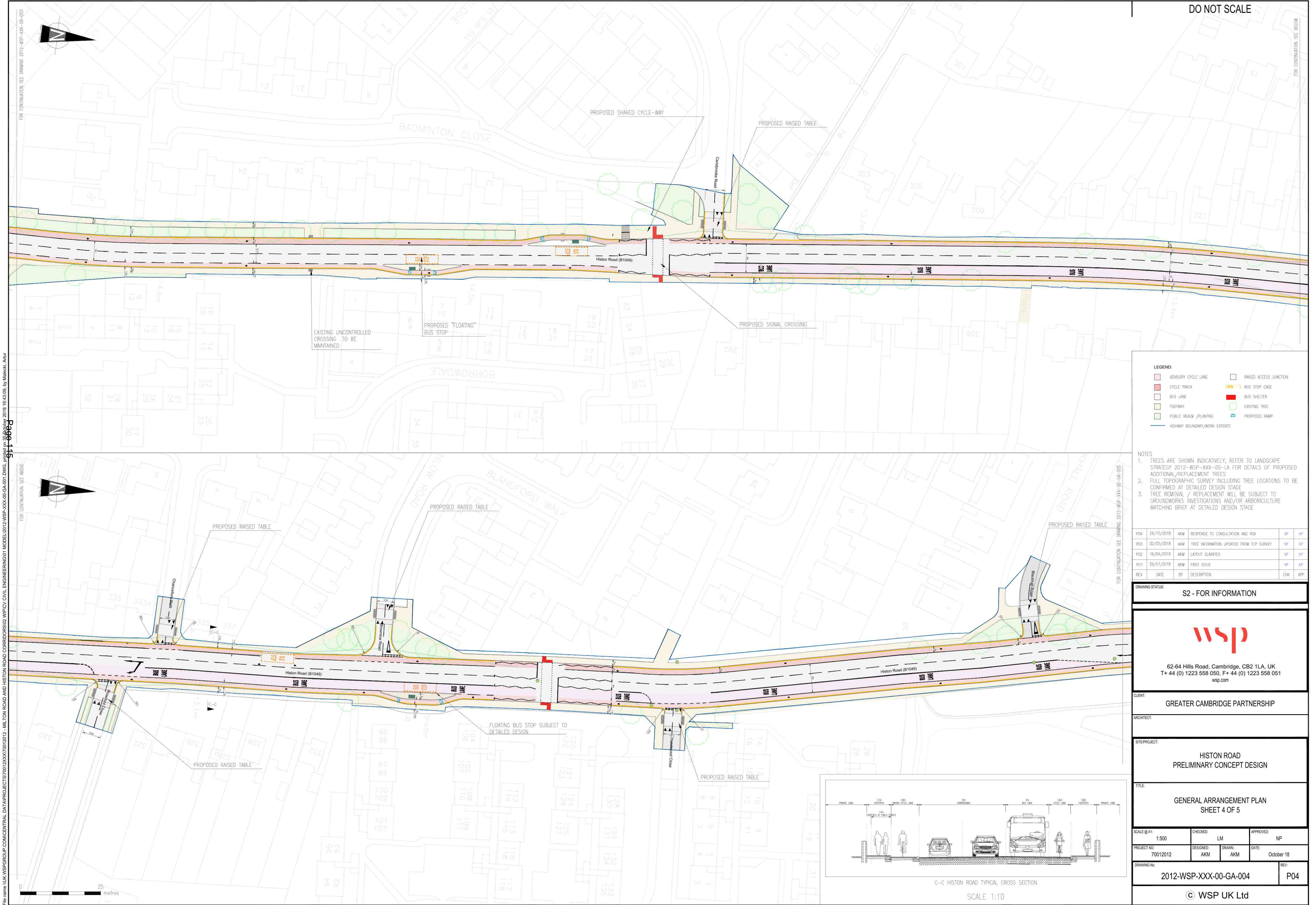
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DRAWING NO: 12012-WSP-XXX-00-GA-003	DATE: October 18	REV: P04

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B-B HISTON ROAD TYPICAL CROSS SECTION

SCALE 1:10



DO NOT SCALE

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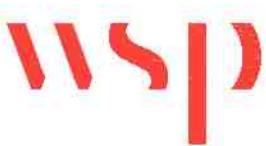
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- FOOTWAY
- PUBLIC REALM /PLANTING
- RAISED ACCESS JUNCTION
- BUS STOP CAGE
- BUS SHELTER
- EXISTING TREE
- PROPOSED RAMP
- HIGHWAY BOUNDARY/WORK EXTENTS

NOTES

- TREES ARE SHOWN INDICATIVELY, REFER TO LANDSCAPE STRATEGY 2012-WSP-XXX-00-LA FOR DETAILS OF PROPOSED ADDITIONAL/REPLACEMENT TREES
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P03	02/05/2018	AKM	TREE INFORMATION UPDATED FROM TOP SURVEY	NP	NP
P02	16/04/2018	AKM	LAYOUT CLARIFIED	NP	NP
P01	29/01/2018	AKM	FIRST ISSUE	NP	NP
REV	DATE	BY	DESCRIPTION	CHK	APP

DRAWING STATUS: S2 - FOR INFORMATION



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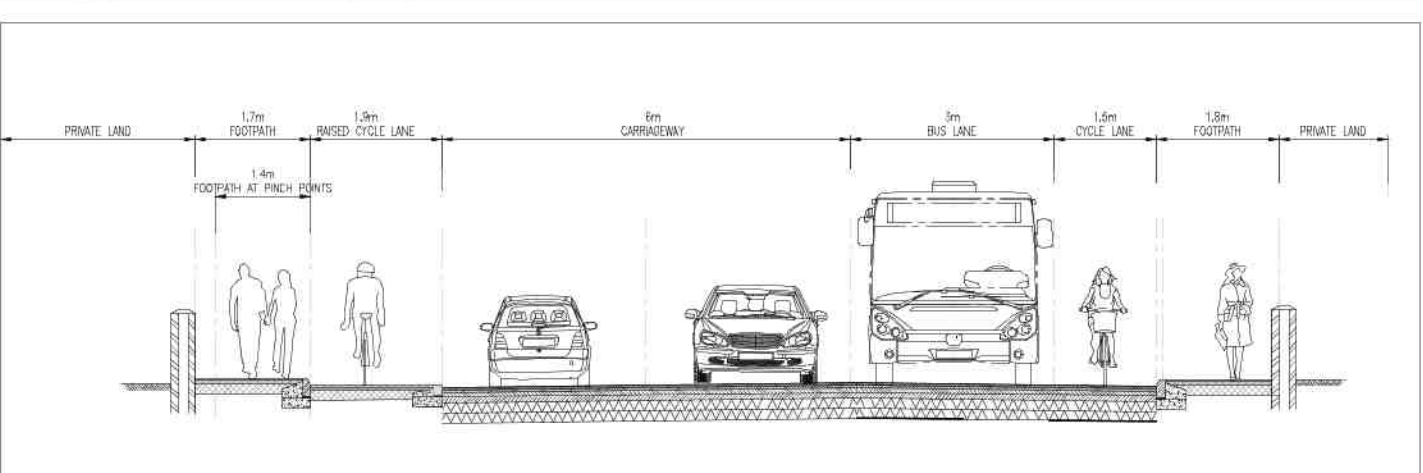
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ARCHITECT: HISTON ROAD
PRELIMINARY CONCEPT DESIGN

TITLE: GENERAL ARRANGEMENT PLAN
SHEET 4 OF 5

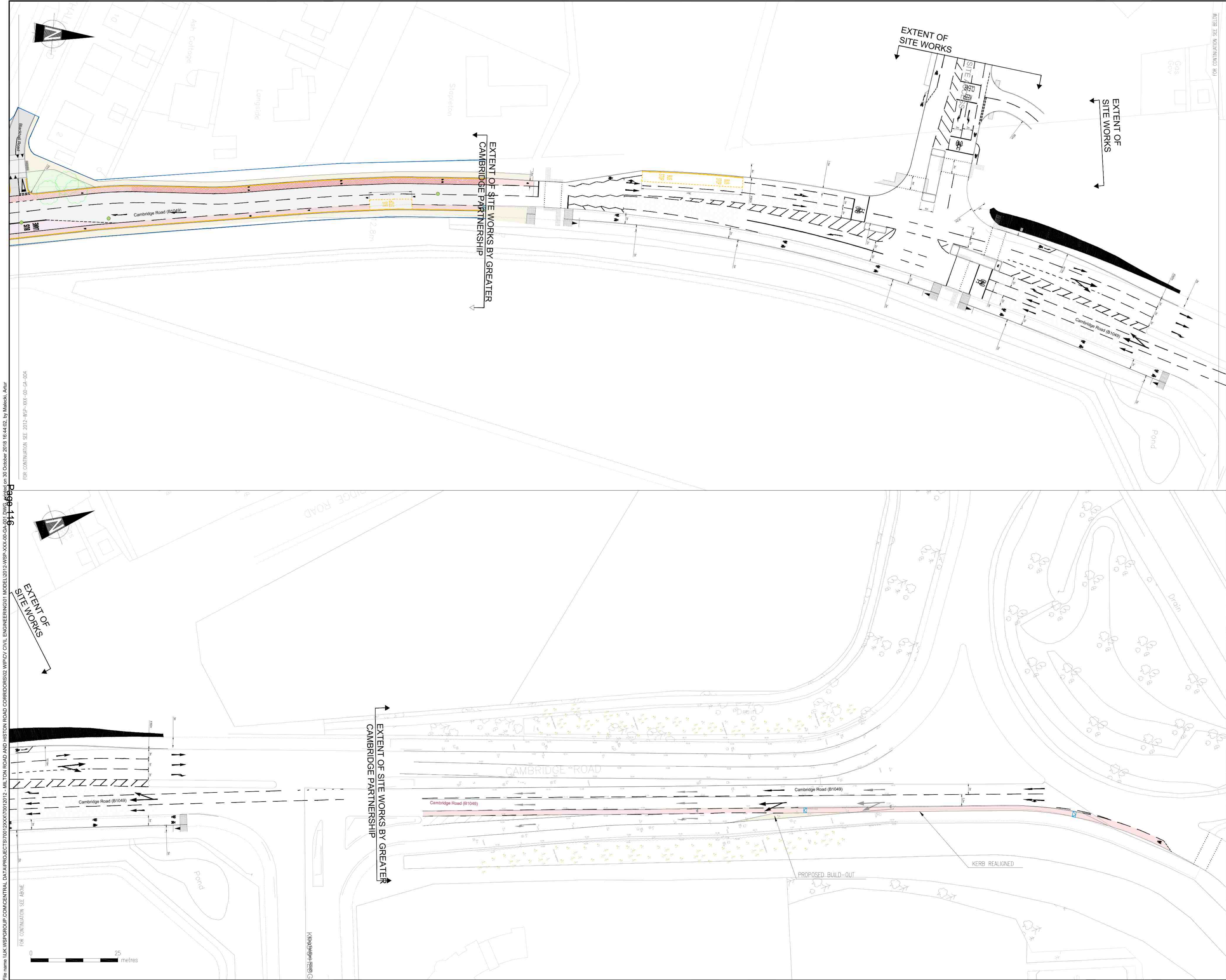
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PROJECT NO: 70012012	DESIGNED: AKM	DRAWN: AKM
DRAWING NO: 2012-WSP-XXX-00-GA-004	DATE: October 18	REV: P04

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C-C HISTON ROAD TYPICAL CROSS SECTION

SCALE 1:10



DO NOT SCALE

LEGEND:

ADVISORY CYCLE LANE	RAISED ACCESS JUNCTION
CYCLE TRACK	BUS STOP CAGE
BUS LANE	BUS SHELTER
FOOTWAY	EXISTING TREE
PUBLIC REALM /PLANTING	PROPOSED RAMP
HIGHWAY BOUNDARY/WORK EXTENTS	

NOTES

- TREES ARE SHOWN INDICATIVELY, REFER TO LANDSCAPE STRATEGY 2012-WSP-XXX-00-LA FOR DETAILS OF PROPOSED ADDITIONAL/REPLACEMENT TREES
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PO2	16/04/2018	AKM	LAYOUT CLARIFIED	NP	NP
PO1	29/01/2018	AKM	FIRST ISSUE	NP	NP
REV	DATE	BY	DESCRIPTION	CHK	APP

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CLIENT:

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ARCHITECT:

SITE/PROJECT:

**HISTON ROAD
PRELIMINARY CONCEPT DESIGN**

TITLE:

**GENERAL ARRANGEMENT PLAN
SHEET 5 OF 5**

SCALE @A1:	1:500	CHECKED:	LM	APPROVED:	NP
PROJECT NO:	70012012	DESIGNED:	AKM	DRAWN:	AKM
DRAWING NO:	2012-WSP-XXX-00-GA-005	DATE:	October 18	REV:	P04

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Agenda Item 9



QUARTERLY PROGRESS REPORT

Report To: Greater Cambridge Partnership Joint Assembly 15th November 2018

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, including:

- A. Overview of cycling projects (Annex A).
- B. Skills procurement.
- C. Budget and budget changes.
- D. Overview of communication activity (Annex B).
- E. Joint Procurement of a transport consultancy framework (Annex C).

2. Programme Finance Overview (2nd November 2018)

2.1 The table below gives an overview of the 2018/19 Budget as agreed at the July Executive Board.

Funding type	2018/19 budget (£000)	Expenditure to date (£000)	Forecast outturn (£000)	**Forecast Variance (£000)	Status*		
					Previous ¹	Current	Change
Infrastructure Programme	25, 953	7,786	20,707	-5,246			
Operations Budget	3,790	1,126	3,790	-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 & 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 - 2018	301			↔
Delivering 1,000 additional affordable homes**	1,000	2011-2031	851			↔

**Based on housing commitments as at 5th October 2018. On rural exception sites and 5 year land supply sites in the rural area

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 when housing delivery exceeds the level needed to meet the Cambridge and South Cambridgeshire Local Plan requirements, can any affordable homes on eligible sites be considered as 'additional' and count towards this target. As reported to the Executive Board previously, the Greater Cambridge housing trajectory published in both Councils' Annual Monitoring Reports (AMRs) in December, shows a comprehensive assessment of planned housing delivery and actual completions (taking into account developer updates). The Greater Cambridge housing trajectory published in December 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 2020/21.
- 4.2. Until 2020/21, affordable homes on eligible sites being completed are counting towards delivering the Greater Cambridge housing requirement of 33,500 dwellings. Therefore it is estimated, based on current information, that any affordable homes on eligible sites anticipated to be delivered from 2020/21 can be counted towards the delivery of the 1,000 additional affordable homes. The date at which it is anticipated that there will be a surplus in terms of housing delivery over and above that required to meet the housing requirements in the Local Plans will be reviewed annually, taking account of anticipated housing delivery as set out in the Greater Cambridge housing trajectory.
- 4.3. The table in the Housing and Strategic Planning section (item 3) shows that on the basis of known planning permissions and planning applications with a resolution to grant planning permission, 851 affordable homes on eligible sites are likely to be delivered towards the target of 1,000 by 2031, consistent with the approach to monitoring agreed by the Executive Board. In practice this means that we already expect to be able to deliver 85% of the target on the basis of current decisions alone. However, this is shown as Amber because the projection for practical reasons is drawn only from known sites.
- 4.4. Since May 2018, there has been a change in circumstances in South Cambridgeshire in relation to five year supply, which has implications on the future contribution to the target from 'five year supply' sites. On 21st May 2018, South Cambridgeshire District Council published an update on its five year housing land supply that demonstrated that it could deliver a five year housing land supply for 2018-2023. On 3rd September 2018, the Cambridge City Council and South Cambridgeshire District Council published the Inspectors' Reports on their Local Plans. The Inspectors concluded that both Local Plans are 'sound' and that the Councils can demonstrate 5.8 years supply for 2018-2023. The South Cambridgeshire Local Plan was adopted on 27th September 2018 and the Cambridge Local Plan was adopted on 18th October 2018. As a result 'five year supply' sites are no longer being permitted by the Council and a number of planning appeals on 'five year supply' sites have been dismissed by the Planning Inspectorate or withdrawn by the applicant. Therefore there has been no change in the last quarter in the number of affordable homes anticipated on eligible sites; it remains at 851 dwellings. Future additional eligible affordable dwellings will therefore be on rural exception sites.
- 4.5. Overall the 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 remains 13 years of the period to 2031 outstanding 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. 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 at a rate of around 50 dwellings per year, therefore we can be confident that the target will be achieved.

Skills

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

Indicator	Target/ profile	Progress	Status		
			Previous	Current	Change
Secondary school/UTC's KS3 & KS4 events	34	36			↔
Special needs events	4	4			↔
Post 16 (KS 5) events run in schools/UTC's	15	8			↔
Business School Brokerage Service	1	1			↔
Multi-school events - Opps Ahead / Primary School Fair/ARU	2	2			↔
Apprenticeship events/interactions (students + parents)	43	43			↔
Apprenticeship CPD (no of schools)	3	3			↔
Business Apprentice Employer Interaction (B2B)	3	3			↔
Local Labour Market Information	10	10			↔

Update on current Form the Future activity

5. Update on the GCP Apprenticeship Service

- 5.1. The GCP Apprenticeship tender was launched on Monday 27th August and closed on 27th September.
- 5.2. Four bids were submitted through Cambridgeshire County Council's procurement portal and they have now been scored and moderated. The outcome of the moderation was that the panel decided it could not recommend any of the submissions to be put forward to run the service. The quality of the bids was not strong enough to give the panel enough confidence to appoint any of the providers.
- 5.3. The outcome is clearly disappointing but officers are keen that we don't lose any further momentum. Officers are working with procurement colleagues to understand how the tender process can be adapted in order to get back out to the market as soon as possible.
- 5.4. Depending on the quality of the next round of tenders, officers are aiming to have appointed a provider by February/March 2019. Officers will keep with Joint Assembly and Executive Board up to date with the outcome of the process.

Smart Places

“Harnessing and developing smart technology, to support transport, housing and skills”

Project	Target completion date	Forecast completion date	Status		
			Previous	Current	Change
Establishment of an Intelligent City Platform (ICP)	Completed				↔
ICP Early Adopters	Completed				↑
Digital wayfinding	Launch event completed				↑
MotionMap	Launch event completed				↔
First steps to Intelligent Mobility	Completed				↔
Phase 2	2020	2020			↔

6. Travel Information Applications

6.1. Following the successful travel information event on 20th June 2018 to formally mark the launch of the Digital Wayfinding devices pilot, the MotionMap app and Smart-Panel pilot, the focus has been on wider deployment and improvements in response to user feedback. A further round of publicity to raise the profile of the travel information applications is being planned for the autumn/winter, hoping to reach a wider audience with the summer break over.

6.2. Digital Wayfinding

- Large digital screens are now live at the Station Gateway and Trumpington Park and Ride. The new devices provide travel information including real-time bus information, walking routes into town (where applicable) and give visitors access to onward travel information.
- The Trumpington Park and Ride device allows ticket purchase via Chip and Pin and, if under £30, via contactless. The software is also mobile wallet compatible for Apple Pay and Android Pay if the Client Merchant account supports it. There is also the option to dispense rail tickets.
- Evaluation of usage is ongoing and will be used to improve and add additional features where agreed as appropriate. We are working with Visit Cambridge and the BID to ensure a unified traveller experience.
- Sites for additional devices are also being identified, for example assisting bus travellers at the Emmanuel and Drummer streets interchange.

6.3. MotionMap Travel App

- Downloads of the MotionMap app from the Apple store and GooglePlay have now exceeded 1150. A release is planned over the next two months to address the main feedback from app users.

6.3. SmartPanels

- This project has developed content from the Intelligent City Platform (iCP) using real time bus and other data to provide valuable information for travellers. The content of the screens is configurable so that information about buses and trains is relevant to the location of the screen. The screens are capable of showing buses as they make their way to nearby bus stops so that travellers can plan accordingly.
- SmartPanels are now operational at 7 sites, with interest expressed by 12 organisations including firm interest from Trinity College, ARM and potentially a further 7 SmartPanel locations for AstraZeneca.

6.4. Further Developments

- In addition to further improvements and deployment of the three travel applications described above, further work is ongoing to extend both data applications and real time data sources to enable the Smart Cities agenda.
- The programme has conducted an 'Expression of Interest' (EoI) in relation to pedestrian and cycling sensors since we have limited data about these modes as present. The EoI resulted in useful insights into current and emerging technologies, and a specification is being prepared with the aim of conducting one or more live trials to obtain significantly improved data which will help to shape future schemes.

7.0. Autonomous Vehicles (AVs)

- 7.1. Following the successful C-CAV3 (Centre for Connected and Autonomous Vehicles, funding round 3) bid for government and industry funding for the development of autonomous public transport solutions, a new project is underway. The project will develop AVs to run out of hours on the Cambridgeshire Guided Busway to the Cambridge Biomedical Campus and Trumpington Park and Ride. The project will result in 5 or 6 vehicles running a trial service.
- 7.2. A project initiation meeting was held in July and an outline plan has been agreed which will see the initial vehicle pilot underway in mid-2019 and the trial service commencing by end 2019. Work is ongoing to agree the detailed delivery plans and collaborative work with the industry partner.
- 7.3. A consortium bid (with industrial partners and in collaboration with Milton Keynes) has been submitted for the next round of funding, known as "C-CAV4". The Cambridge aspect of the bid proposes extending the C-CAV3 scheme by running the larger AV shuttles around the CBC campus and investigating the use of shared vehicles bringing commuters from the outlying villages to the Park and Ride travel hub, with the aim of encouraging people to reduce private car usage.

Transport

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

8. Transport Delivery Overview

					Status		
Project		Delivery stage	Target completion date	Forecast completion date	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	2018			↔
	Hills Road / Addenbrooke’s corridor	Completed	2017	2018			↔
	Links to East Cambridge & NCN11/ Fen Ditton	Construction	2018	2018			↔
	Arbury Road corridor	Construction	2018	2018			↔
	Links to Cambridge North Station & Science Park	Construction	2018	2018			↔
Histon Road Bus Priority		Design	2022	2019			↔
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	2018	2018			↔
Rural Travel Hubs		Project Initiation	2021	2021			↔

Travel Audit – South Station and biomedical campus	Baseline Study	2019	2019			↔
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9. Transport Finance Overview (to 2nd November 2018)

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	140,000	-1,082	1,397	2,350	+953			↔
Cambourne to Cambridge / A428 corridor	59,040	59,040	0	2,900	2,300	-600			↔
Milton Road bus priority	23,040	23,040	0	800	330	-470			↔
City Centre Access Project	9,638	9,888	250	3,995	2,525	-1470			↔
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	3,000	0			↔
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	150	0	62	62	0			↔
Total	271,274	277,812	6,538	25,953	20,707	-5,246			↔

The explanation for variances is set out below.

10.1. Cambridge Southeast Transport Study (formerly A1307)

The £953k variance is due to revised forecasts, based on a formal proposal by consultants for design development of Phase 1 and Phase 2, and extended survey work, including Phase 2 walkovers.

10.2. Cambourne to Cambridge / A428 Corridor

Currently the anticipated underspend is likely to be £600k as this project is still on hold whilst being reviewed by the Combined Authority. A further extended period of hold has been required until December 2018. Subject to this being agreed, consultation on Phase 2 options is programmed for early 2019, placing a further delay of 3 months in the programme.

10.3. Milton Road – Bus Priority

The forecast outturn spend is £470k less than originally planned with construction costs now moving into 2019/20. The programme looks to commence detailed design in spring 2019 with mobilisation with construction starting in mid-2020.

10.4. City Access Programme

As several work streams in the City Access programme have been delayed or put back to allow for other work to be completed, the budget is expected to be underspent this year. At this stage the anticipated underspend is in the region of £1,470k against the overall budget of £3,995k. This includes all workstreams under City Access including City Centre Spaces and Movement and Residents Parking Implementation.

The increase in the Revised Total Budget for City Access reflects the fact that the City Centre Spaces and Movement budget (£150K) and Electric Vehicle Charging (£100K) were previously shown as separate budget lines and have now been amalgamated into it.

10.5. Chisholm Trail

Underspend of £3 million is forecast for 2018/19 against the original spend profile due to delays in discharging pre-commencement planning conditions. The construction contract has now been let to Tarmac for work on Chisholm Trail Phase One and the Abbey-Chesterton Bridge, a little later in the financial year than originally planned.

10.6. Cross-City Cycle Improvements

The forecast outturn spend is £500k less than originally planned as some expenditure will go into 2019/20 to cover final contractor bills, and any minor alterations and amendments being made to completed schemes. All schemes now under construction or complete.

10.7. Histon Road – Bus Priority

The forecast outturn spend is £106k more than originally planned. This is due to the detailed design phase starting in this financial year, bringing forward additional costs and therefore impacting potential outturn spend. The overall budget has been increased to £7M following approval by the GCP Executive Board of the construction cost estimate of £6M. The forecast to the end of the financial year assumes that the final preliminary design is submitted to the Executive Board in December 2018 and that construction begins in 2019.

10.8. West of Cambridge Package of Interventions (formerly Western Orbital)

The forecast outturn has increased to £1.2m (from £600k) to reflect the requirement to complete the Trumpington Extension works in 2018/19. A public consultation on the further expansion of Park and Ride capacity in the area is now planned for November and December 2019. The planning hearing for the existing extension works was held in October 2018 by the Joint Planning Committee and the application was approved.

10.9. *Ely to Cambridge Transport Study*

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

10.10. *Rural Travel Hubs*

An underspend is due to a change in scope of the Sawston hub. The Sawston hub has not gone to the stage of detailed design and consultation. Three feasibility studies are being undertaken on sites to the east, west and south of Sawston.

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: 6 December 2018		Reports for each item to be published: 26 November 2018	Report Author	Key Decision	Alignment with Combined Authority
A428 Cambourne to Cambridge	To consider an interim outline business case following public consultation and work on business case development.	Peter Blake	Yes	CA LTP Passenger Transport Strategy	
City Access and Bus Service Improvements	To receive an update on progress, details of the intelligent signals review delivery plan and to give approval to engage on demand management principles and measures.	Peter Blake	Yes	CA LTP Passenger Transport / Walking and Cycling / Streetscape Strategy	
Histon Road	To consider results of the public consultation and give approval to any proposed modifications to the final preliminary design for Histon 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	

GCP Quarterly Progress Report	To monitor progress across the GCP workstreams, including financial monitoring information.	Niamh Matthews	No	N/A
Executive Board: 20 March 2019	Reports for each item to be published: 8 March 2019	Report Author	Key Decision	Alignment with Combined Authority
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 Studies into Rail Capacity and Cambridge Biomedical Campus	To receive an update and information on the output of the studies.	Peter Blake	No	CA LTP Passenger Transport/ Interchange 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
GCP Future Investment Strategy	To agree a prioritised list of projects for future investment.	Rachel Stopard	Yes	CA Prospectus/ 4-year plan
GCP Quarterly Progress Report	To monitor progress across the GCP workstreams, including financial monitoring information.	Niamh Matthews	No	N/A

Executive Board: 27 June 2019		Reports for each item to be published: 17 June 2019	Report Author	Key Decision	Alignment with Combined Authority
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
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
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
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
A428 Cambourne to Cambridge	To consider a detailed scheme for progression to planning consent and powers for consent of the works.		Peter Blake	Yes	CA LTP Passenger Transport Strategy
GCP Quarterly Progress Report	To monitor progress across the GCP workstreams, including financial monitoring information.		Niamh Matthews	No	N/A

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
6 December 2018	26 November 2018	15 November 2018	5 November 2018
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

Annex A. Cycling Projects Update

A number of cycling projects have been approved as part of GCP Tranche One, and these are all well underway, with a total budget allocated of almost £24million. The projects support the ambitious target of 40% of all trips in Cambridge made by bike by 2023, and 20% of all trips made by bike in South Cambridgeshire by 2023. More people cycling supports public health, air quality and congestion reduction objectives. Improved cycling infrastructure generally brings benefits too for pedestrians.

Cross City Cycling

In June 2016 the Executive Board approved five cycling infrastructure projects for implementation in Cambridge, under the overall project name of 'Cross City Cycling', with a budget of £9.3m. The projects are on track to be completed by June 2019, and currently spend is over £6.5m

Arbury Road has been built in a series of phases and includes raised/stepped red cycle lanes, resurfaced footways, new zebra crossings, narrowed and resurfaced main carriageway, mini roundabouts removed in favour of new raised table junctions, and new hedge and tree planting. Works are currently underway near Mansel Way, which includes removal of a set of traffic signals. In due course improvements to cycling facilities in Arbury Road will provide a link between Histon Road and Milton Road, thus providing the spine of a high quality cycling network in north Cambridge.

Construction work in Fulbourn Road commenced early in 2018 to provide raised/stepped red cycle lanes and widened areas of shared use paths, to make cycling a safer and more attractive transport option for local residents, and for commuters heading to ARM and Capital Park. Additional land is being procured adjacent to the Robin Hood pub so that floating bus stops can be installed to improve cycle safety further. Funding for Greenways Quick Wins has allowed the Fulbourn Road improvements to be extended along Yarrow Road, to link Fulbourn Road to the Fulbourn Greenway.

The first phase of Links to Cambridge North Station was completed in early 2018 and comprised of new red advisory cycle lanes, as available space meant this was the only option. For the next phase under construction at present, there is much more space within the highway cross section and so kerb protected cycle lanes are being built, including new tree planting and verges, with parking retained, and resurfaced footways. Lots of issues have arisen relating to statutory undertakers plant needing relocating or protecting which has made for relatively slow progress on site, and extensive areas of temporary works, though once complete this will be amongst the very best examples of high quality cycling infrastructure in the city.

Construction work is also underway on the Links to East Cambridge and National Cycle Network Route 11 project in Fen Ditton. Footways and cycleways are being widened to improve the network for walking and cycling in this area, as well as adding new crossings. Works at Hills Road to extend the raised/stepped cycle lanes to the Addenbrooke's roundabout and to improve the Hills Road/Long Road junction, completed in early 2018.

Chisholm Trail (and Abbey-Chesterton Bridge)

The projects suffered considerable delay through the planning and planning condition discharge processes, which meant land deals needed to be extended, and further costs incurred.

With the finalisation of land deals relating to the works compound areas, the construction contract for Chisholm Trail Phase One and Abbey-Chesterton Bridge was let to Tarmac in October. Tarmac have been actively inputting on issues of buildability and value for nine months.

In the period leading up to Christmas, the activity on site will include setting up works compounds, building the haul road from the main compound (located off Ditton Walk) to the bridge, and other preparatory works. In 2019 the more significant construction works will commence on the new bridge and jetty. The programme duration is 18 months, with completion in April 2020. Some planning conditions still need to be discharged for The Chisholm Trail, so works around Newmarket Road will take place later in the programme.

Phase Two of The Chisholm Trail skirts the railway line on both the east (Romsey) and west (Petersfield) side from Coldhams Lane to Cambridge Station via quiet streets, land owned by Network Rail and new housing developments (Mill Road depot and Ridgeons). The Project Team are working closely with Network Rail/Govia Thameslink to bring forward the first section of Phase Two as part of the works being delivered when Mill road is closed in May 2019.

Greenways

£500,000 has been allocated for 2017/18 and 2018/19 to develop the 12 Greenway routes through public consultation, and to move towards agreed alignments and scope for each route. The first two route consultations completed recently, and three further consultations are now underway. Linton Greenway has been agreed as part of the South East Cambridge Transport Strategy consultation. The other consultations are on track to take place by the start of summer 2019, to enable the Executive Board to consider the recommendations in late summer 2019.

At the Executive Board meeting on 11th October 2018 it was agreed that proposals to improve the link between Melbourn and Royston would be included in the Melbourn Greenway. Officers will continue to engage with Hertfordshire County Council regarding a partnership funding arrangement as any new bridge over the A505 would sit in both Cambridgeshire and Hertfordshire.

In response to feedback received at the early engagement events for the 12 Greenways, officers developed a 'Quick Wins' Programme of schemes that could be delivered over the next two financial years. A £4.65m package was approved by the Executive Board. The programme consists of new and improved links to Greenways, as well as improved sections of Greenways. Delivery has commenced on this work.

Other Cycling Projects

The Cycling Projects Team actively pursues funding opportunities to improve and enhance the cycle network in Cambridgeshire. Currently funding is in place from S106 developer

contributions, the Combined Authority, Highways England and various Department for Transport programmes.

A Local Cycling and Walking Infrastructure Plan (LCWIP) is being developed which will provide a prioritised list and map of future projects. The team are also one of just two local authorities feeding into a revised national cycling infrastructure design guide.

GCP comms update

Q2 July - September 2018

Consultation & engagement

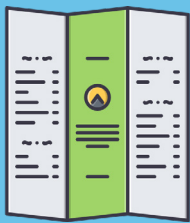
5

Public consultations

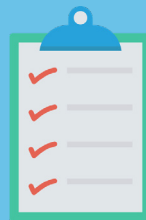
- Making space for people
- Barton Greenway
- Haslingfield Greenway
- Milton Road
- Histon Road



22 public meetings
approx. **500** conversations



24,000 leaflets distributed

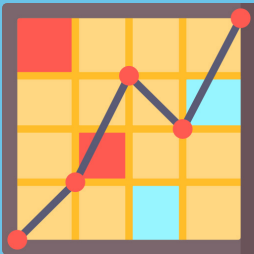


2,822 survey responses



11,474 emails sent

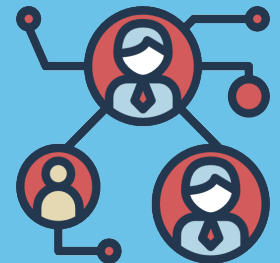
Web & social



17,585 website visits
36,292 unique pageviews



3,078 followers across
three social media channels



Avg **1,909** people
reached per post

In the news



49 media mentions

Four new park and ride sites to be built around Cambridge

Consultation to launch on Milton Road improvement plans

Cambridge hits the Smart Cities big time

Work begins on cycling improvements between Cambridge and Fen Ditton

Greater Cambridge businesses to hear 'smart' travel technology benefits



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Annex C: Joint Procurement of a transport consultancy framework

The delivery of the Partnership's transport investment programme is dependant upon support from transport consultancy and professional services' providers. They support the officer team with business case development, technical design and wider scheme development. At the present time such services are procured on an ad-hoc basis which is ineffective, does not deliver value for money and limits the development of longer term relationships necessary to support delivery of the Partnership's programme.

Following discussions with Cambridgeshire and Peterborough Combined Authority and Cambridgeshire County Council, it is proposed to jointly procure a transport consultancy and professional services framework upon which each of the parties can draw on to support local delivery. The joint framework will deliver value for money and allow for longer term relationships to be established with a small number of consultants, improving local delivery. If agreed by the Executive Board, the framework will be procured in accordance with OJEU and County Council guidelines.

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