“Option 6”: an appropriately segregated, high-speed bus route between Cambourne and Cambridge that makes best use of existing infrastructure.

Option 6 provides a meaningful, cost-effective and deliverable improvement in bus journeys that is appropriate to current and future levels of demand. Sufficient to meet the needs of the Local Plan and compliant with the transport strategy for Cambridgeshire, it is adaptable to future key strategic decisions (e.g., an all-ways interchange at Girton). Environmentally friendly and serving existing communities as well as any new developments, it has widespread community support and so could be implemented without delay.

RATIONALE

• The LLF supports the improvement of public transport west of the city, but argues for improvements to benefit existing communities as well as any new settlements.

• The LLF wants a solution that is adaptable, and if necessary reversible, as and when other key strategic decisions – such as the East/West road link and the creation of an all-ways interchange at Girton – are taken.

• The LLF considers that current and future demand can be more than adequately met by effective use of existing infrastructure, with on-line segregation where merited.

• The LLF does not accept that a convincing case has been made to justify off-road segregation through the Green Belt or other open country, either on cost or environmental grounds.

• The LLF does not support any route south of Caldecote and Hardwick or south of Madingley Rise. Tidal bus segregation along Madingley Rise will more than satisfy current and future demand and has been proved to be feasible.

• The LLF does not support any route through the West Fields but supports service to and within the West Cambridge site. Of the remaining two options for reaching the city centre, Madingley Road, which already carries buses, is considered more suitable than Adams Road.

• The LLF supports improved cycling facilities along the entire corridor but it is not necessary for these to run alongside road or busway infrastructure.

• This LLF proposal is based on the assumption that the City Deal will take measures – e.g., on street parking controls and free Park & Ride parking – to address the demand element of existing roads within the city, and so assist in the efficient onward travel of buses once they exit the West Cambridge Site.

• The LLF strongly opposes a Park & Ride site at Crome Lea because it is too environmentally damaging and will worsen, not relieve, congestion in the area.

• The LLF supports a Park & Cycle/Ride near Scotland Farm, provided that traffic through Dry Drayton is effectively controlled.
BACKGROUND

Option 6 is underpinned by responses to the Autumn 2015 public consultation:

- West of the A428/A1303 junction, 58% of respondents opposed the off-road southern route, and 58% supported the on-road central route.
- East of the A428/A1303 junction, 65% of respondents opposed the off-road southern route, and 67% supported the on-road central route.

Option 6 is underpinned by the following key resolutions adopted by the Local Liaison Forum at its meeting of 26 September 2016:

Resolution 2: The A428 LLF accepts the necessity for a public transport corridor on the A428 but has serious reservations about option 3/3a on environmental and social, value for money and public consultation grounds. It asks the GCCD to consider other options where the environmental and social impact criteria are given equal weight with economic benefits and marginally shortened journey times.

Resolution 3: The A428 LLF cannot support option 3/3a while the West Fields area to the south of the Footpath, the Coton Countryside Reserve and the area to the south of the Polhill Garden Centre are included in the catchment area.

Resolution 8: The proposal to place a new Park & Ride site close to Madingley Mulch Roundabout is not acceptable to Madingley and Coton parishes. It is strongly recommended that GCCD reconsider this and we support that a new Park & Ride site should be built at the Scotland Farm junction of the A428.
ROUTE DESCRIPTION

See accompanying map

Cambourne to to Madingley Mulch
An on-line service from Cambourne/Cambourne West (and a possible Bourn Airfield development, if approved), using existing, uncongested A428 (for express services) and St Neots Road (for stopping services serving Caldecote and Hardwick), with appropriate segregation and/or bus priority measures where current and future conditions merit it. At the Madingley Mulch roundabout (A1303/A428 junction), preferential traffic signals and/or a dedicated bus track permit buses to go round or across the roundabout without stopping for other traffic.

Park & Cycle/Ride provision
A Park & Cycle/Ride west of the Madingley Mulch Roundabout, in vicinity of the A428 junction at Scotland Farm, serving all local communities between Cambourne and Cambridge and intercepting traffic prior to the build-up of congestion. If located north of the A428, then easy access is available via the existing bridge crossing the A428. If a location between the A428 and St Neots Road is feasible, then access would be even easier.

Madingley Mulch to West Cambridge site
On-line single/tidal or double bus lane along the centre of Madingley Rise, over existing M11 bridge and into West Cambridge site at Ada Lovelace Road or High Cross. As congestion is limited to morning peak hours, a tidal solution would be more than adequate to provide attractive all-day journey times. Segregated off-road pedestrian/cycleway south of Madingley Rise and via Coton footbridge.

West Cambridge site transport hub
Bus/cycle transport hub to be located within the West Cambridge site, possibly on Charles Babbage Road – City Deal can influence the University’s Master Plan to ensure the provision of such a high quality transport hub on the site. Some buses will connect with the Western Orbital route to Addenbrooke’s and traverse the North-West campus to the Science Park. Others serve the West Cambridge site and/or provide an express service direct to the city centre via Madingley Road. At the West Cambridge transport hub, rental bikes will also be available, or passengers can choose to walk the 10-15 minutes to the city centre. A dedicated cycle route from the West Cambridge site to the city centre will be established. In addition, high quality cycle and pedestrian provision will be provided from the transport hub (via an underpass) to the North-West Cambridge site.

West Cambridge site to City Centre
Buses serving the West Cambridge site exit back onto Madingley Road, and can access the city centre via Northampton Street or via Grange Road. The distance and journey time from the West Cambridge site to the bus stops at Grand Arcade are the same going via Northampton Street as they would be on a new route through fields to Grange Road and on via Silver Street.
Option 6 Route Map

High-speed, on-line service from Cambourne to Madingley Mulch, using existing, uncongested A428 (for express services) and St Neots Road (for stopping services).

Easy access to P&R via existing bridge over A428, if needed.

Park & Cycle/Ride in vicinity of A428 junction at Scotland Farm, serving local communities along and beyond corridor and intercepting traffic prior to build-up of congestion.

Segregation and/or signalisation to allow buses to pass directly round or through Madingley Mulch roundabout without stopping for car traffic.

Single/tidal or double bus lane along the centre of Madingley Rise, with tidal or signalised flow across M11 overbridge. Segregated off-road cycleway via Coton.

Easy connectivity with Western Orbital service to Addenbrooke’s Biomedical Campus.

Buses serving West Cambridge site exit north and travel along Madingley Rd and can access the city centre via Northampton St or via Grange Rd.

Some express buses could stay on Madingley Rd – options to be assessed.

Easy connectivity through North-West Cambridge site to the Science Park. Pedestrian/cycle underpass between the two campuses.

Easy access to P&R via existing bridge over A428, if needed.

Appropriate on-line segregation and/or bus priority measures where needed to ensure free running of buses.

Segregation and/or signalisation to allow buses to pass directly round or through Madingley Mulch roundabout without stopping for car traffic.

Service through West Cambridge site on existing roads. Bus/cycle transport hub on campus with dedicated cycle route to city centre.
Benefits of Option 6, the Better Bus Route

Value for Money
Less than a quarter of the cost of the fully off-line “Option 3” scheme, while offering virtually the same transport benefits. Benefit-cost ratio greater than 1, with potential to enhance to 1.5-2 range (medium to high value for money).

BCR – Option 6: 1.22; Option 3/3a: 0.21

Financially Responsible
Involves an appropriate level of investment for the A428 corridor, leaving substantial funding available to promote modal shift and for other important City Deal projects across the city and county.

Capital construction costs – Option 6: £32-35m; Option 3/3a: £142m

Strategic Fit
Option 6 greatly outscores all other options, including Option 3/3a, in the Multi-Criteria Assessment Framework, a crude assessment of strategic fit, transport economic, environmental and delivery criteria, which indicates the strength of the case for investment.

MCAF – Option 6: 93 points; Option 3/3a: 49 points

Environmentally Sensitive
Minimal adverse environmental impact; makes best use of existing infrastructure.

Overwhelmingly Supported by Local Community
Quick and trouble-free to implement, with no legal, technical and administrative challenges and obstacles. Positive knock-on effect on other City Deal programmes.

Supports High Quality Public Transport
Segregation and bus priority measures where needed to by-pass congestion, ensuring fast, frequent services with reliable journey times.

Attractive Journey Times
Peak hours journey time from Cambourne to West Cambridge site is approximately 14 minutes, just two minutes slower each way than a completely off-road busway, at less than a quarter of the cost.

Convenient
Park & Cycle/Ride accessible to more communities west of Cambridge, including cars travelling westbound on A428. Park & Ride located before the build-up of congestion, reducing commuters’ journey times.

Flexible
Opportunity to serve more communities west of Cambridge due to its use of existing roads. Opportunity to interface with existing Citi 4 service.

Connectivity to Western Orbital scheme
Efficient connectivity with an on-line Western orbital at Junction 13 of M11.

Future-proof
Route is either segregated or uses roads not at risk of future congestion, allowing for bus capacity far in excess of that required by projections beyond the next 30 years.

Satisfies the Local Plan
Provides fast, frequent reliable bus journeys, with segregation where required – meets the needs of the Local Plan Inspector.

Coherence with City Deal vision and local policy objectives
All the benefits of an off-line segregated scheme, including the highest level of economic benefits, but at a fraction of the cost of new infrastructure. Through its environmental sensitivity and community acceptance, it promotes a positive image and perceptions, encouraging investment and growth.