

# CAMBRIDGE MAKING CONNECTIONS – CHARGING BOUNDARY UPDATE TECHNICAL NOTE

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<b>SUBJECT:</b>	Cambridge Making Connections Charging Boundary Update Technical Note V0.3		
<b>PROJECT:</b>	Making Connections	<b>AUTHOR:</b>	CW NP
<b>CHECKED:</b>	MB	<b>APPROVED:</b>	MA

## SECTION 1 - INTRODUCTION

This note highlights and considers potential, localised issues with the sustainable travel zone (STZ) boundary. These issues have been highlighted following feedback received through the Making Connections public consultation in Autumn 2022.

The STZ boundary will be refined as the Making Connections programme continues, in response to feedback as well as the findings from localised site surveys, following publication and acceptance of the Outline Business Case for the Making Connections programme.

### Project Background

The Greater Cambridge Partnership (GCP) transport programme includes a range of projects including 'Making Connections', a suite of initiatives to transform public transport, cycling and walking and reduce pollution and congestion:

- A transformed bus network, offering more frequent services, lower fares, longer operating hours, and new routes into growing employment sites.
- A sustainable travel zone (STZ), which comprises a road user charging scheme designed to reduce traffic and congestion in the city centre and generate revenue to invest in better bus services and more walking and cycling infrastructure.
- Investment in sustainable transport measures to provide a package of wider measures with a greater focus on making better use of the network, and maximising opportunities to influence travel demand.

The geographic extent of the STZ, including the proposed boundary of the zone, was consulted upon in late 2022, and broadly covers the urban landscape of the city of Cambridge. The proposals for the design of the STZ up to this point have been based on the geographic extent and boundary position included within the 2022 public consultation (figure 1).

### Initial extent and STZ boundary

The following principles were used to define the extent and boundary of the STZ consulted upon in Autumn 2022 (figure 1):

- The charge area should cover the Cambridge urban area. In some locations this will mirror the City and South Cambridgeshire boundary so as, where possible, to treat communities in those areas equitably; but in some areas the proposed charge area departs from this to encompass existing and allocated development on the city fringes so as to include those areas that are effectively part of the city's built-up fabric, even though in part these might be located in South Cambridgeshire (for example, Orchard Park, Science Park, North East Cambridge, Eddington and so on);
- The existing park and ride sites should be located outside of the charge zone to encourage the transfer of trips from the car to alternative forms of transport; and
- Communities located outside the zone who need access to the strategic road network (SRN), but do not have an end-destination within the zone, should be able to access the SRN without entering the zone.

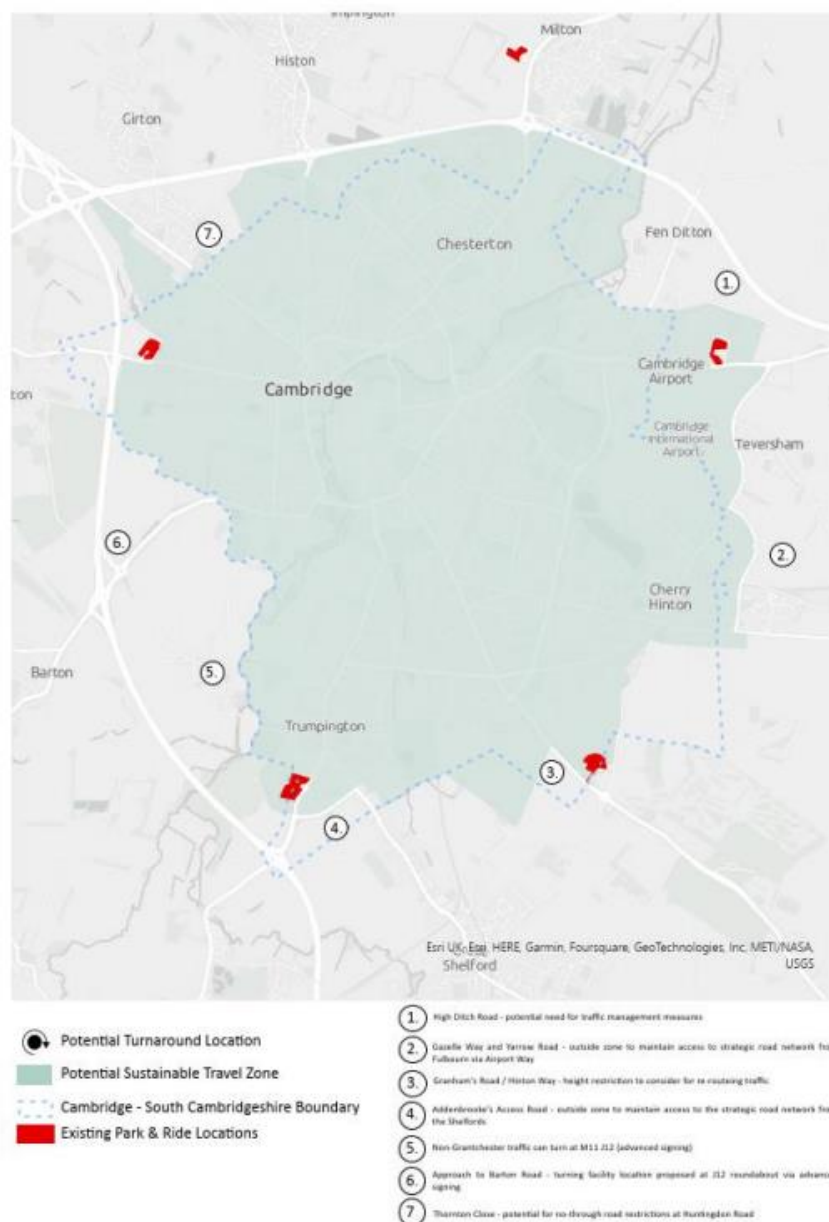


Figure 1 –Initial proposal for the (STZ Autumn 2022)

## Identified boundary Issues

Following the Making Connections public consultation (Autumn 2022), a number of issues have been identified with the proposed boundary. These issues are highlighted in the following table and potential resolutions proposed. Further work, including detailed site surveys, will be carried out during the next stages of the project, in consultation with stakeholders, before final resolutions can be applied.

### Case 1: Boundary intersecting with a house – Limekin Road

Issue	Potential resolution	Note
Boundary is dissecting a house next to Limekin Road (Figure 2)	Redraw boundary to enclose the new house development off Queen Edith's Way / Limekin Road.	The Cherry and Hinton Caravan club is south of the new houses, including the site entrance which could affect the final boundary.



Figure 2 Boundary dissecting house adjacent to Limekin Road

## Case 2: Exclusion of Girton College and surrounding housing

Issue	Potential resolution	Note
Exclusion of Girton College and the surrounding areas from the boundary (figure 3).	Engage with GCP to determine whether to include or exclude Girton College and surrounding areas from the boundary.	There is a new large development in the vacant area of land directly south of the college. The development now provides a link road between Madingley Road and Huntingdon Road which could affect the final boundary.



Figure 3 Exclusion of Girton College and surrounding housing

### Case 3: Boundary penetrating playground

Issue	Potential resolution	Note
Boundary cuts through a playground close to King's College sports ground (figure 4).	Redraw boundary to include the whole playground within the boundary.	Suggest moving the boundary to envelope the two properties next to the playing field when moving the boundary. If moved, consideration should be given to the parking layby for the ground and possible sports club to the west of the field.



Figure 4 Boundary dissecting playground at King's College Sports Ground

### Case 4: Potential rat-running High Ditch Road

Issue	Potential resolution for further investigation
<p>The boundary incentivises rat running along High Ditch Road towards Newmarket Road P&amp;R, either from those travelling south along the B1047 from Horninsea/Waterbeach or from those travelling east on the A14 particularly if traffic is high / congestion (figure 5).</p> <p><b>Note:</b> Rat-running in both directions when the A14 is congested is an existing issue; the road is rural, narrow, passes through a village.</p>	<p><b>Option 1:</b> Expand the zone slightly to include High Ditch Road. This may help to address the existing rat running issue as well as avoid creating a new problem.</p> <p><b>Option 2:</b> Move the boundary slightly inward at the junction of B1047/A1303 by the cemetery. This would allow southbound traffic on Horningsea Road to continue as far Barnwell then turn left/eastward (outbound) along Newmarket Road to reach the park and ride without being charged (Also removes the incentive to rat run down High Ditch Road for Park &amp; Ride access).</p> <p><b>Option 3:</b> A1303/B1047 junction is a signalised junction - the A1303 immediately west of the junction becomes dual carriageway. Once drivers join this section they are committed to using the roundabout further west near McDonalds. Suggest the boundary is moved to the western side of the A1303/B1047 junction. In time this junction may need to be upgraded or at least the signal phasing reviewed to deal with demand.</p>



Figure 5 Potential rat running along High Ditch Road

## Case 5: Teversham and Fulbourn

Issue	Potential resolution	Note
<p>A large section of two villages - Teversham and Fulbourn - are concerned about the boundaries of the zone and its extension to the east of the city since it would bisect communities (figure 6).</p>	<p>Move the boundary in Cherry Hinton to exclude the cul-de-sacs accessed via Gazelle Way. This would allow Teversham and Fulbourn residents to access to the Tesco superstore, the A14 and Balsham Road (to access the A11). Entry points to the STZ for residents from these villages would therefore be:</p> <ul style="list-style-type: none"> <li>- West of the park &amp; ride on Newmarket Road (as already planned)</li> <li>- Southern exit to the Cherry Hinton Road/Gazelle Way roundabout</li> <li>- Cambridge Road west of the junction with Gazelle Way</li> </ul>	<p>Local communities like Teversham are concerned about the location of the park &amp; ride and boundary of the zone in relation to Fulbourn Tesco which is an important local hub.</p> <p>Without this proposed resolution local vehicles could use the much less suitable Fulbourn Road/Teversham Road linking the two villages increasing traffic.</p>



Figure 6 Teversham and Fulbourn





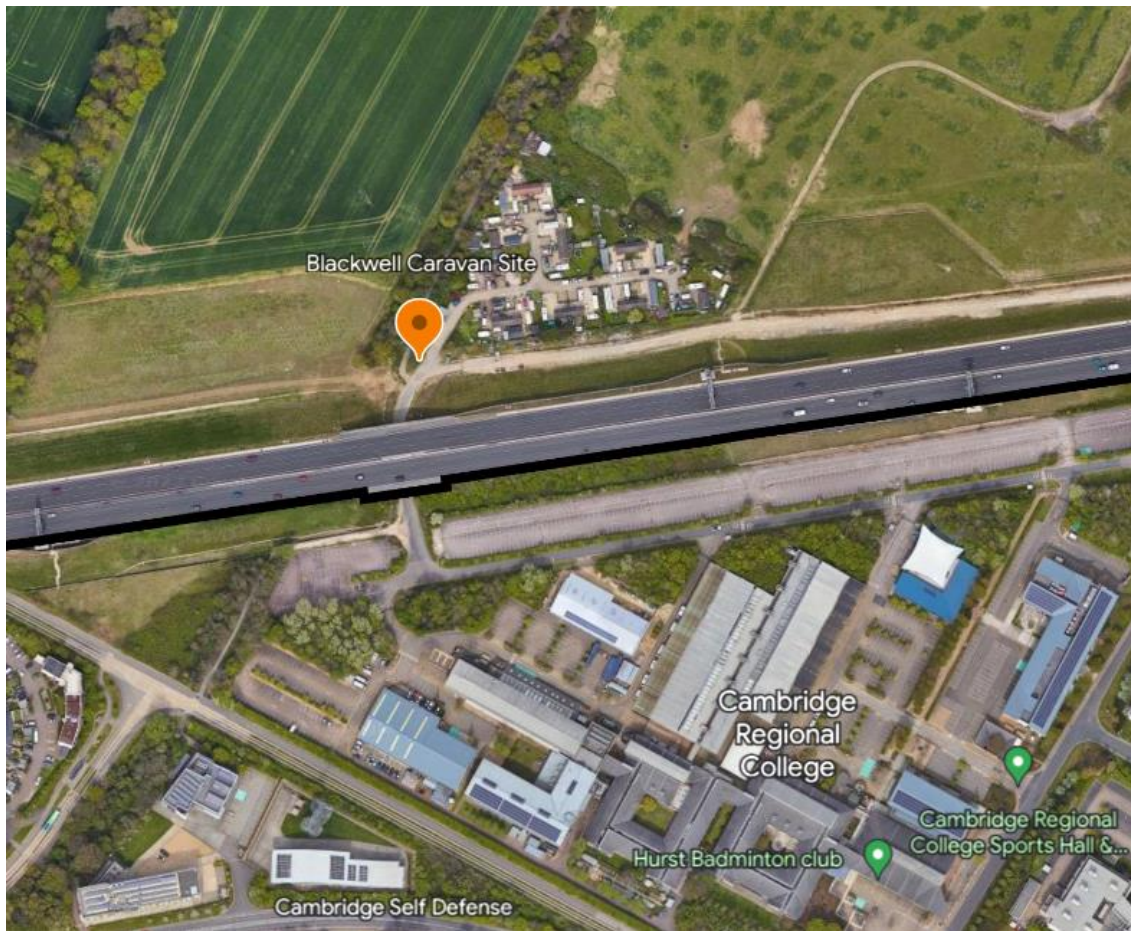


Figure 8 Blackwell traveller site

There are three potential options which could address these sites as part of the STZ:

**Option 1:** Place STZ Automatic Number Plate Recognition (ANPR) cameras at the entrance points to these sites to ensure all vehicles entering/exiting are captured. Once the movements have been captured the appropriate action can be taken with respect to charging the registered vehicle keeper or applying a discount, exemption or reimbursement.

Fen Road – Locate STZ ANPR cameras east of the junction with Moss Bank

Blackwell – Locate STZ ANPR cameras on the southern side of the A14 subway

**Option 2:** Residents of both sites provide a list of vehicle registrations in order that the appropriate discount, exemption or reimbursement can be applied to those vehicle movements, as deemed appropriate. No additional cameras would be placed near the sites.

**Option 3:** There is the potential to move the boundary to exclude the access to the Blackwell traveller site however this is not straightforward but we would need to undertake further discussion with stakeholders to resolve localised issues.

**Potential issues to consider:**

**Implementation and administration:** Compared to the overall expected number of vehicles travelling through the STZ on a daily basis, the number of vehicles accessing these sites (including the commercial properties on Fen Road) is likely to be low. The cost of implementing and administering any proposed solution (including capital expenditure, administration of the STZ charge and any enforcement activities), whether that involves placement of ANPR cameras or an alternative solution, should be in proportion with the anticipated benefits.

**Maintenance:** The cost of repairing and / or replacing equipment, depending upon the frequency and severity of damage caused, may not be in proportion with the benefits, in particular the revenue gained from charging vehicles accessing the site.

**Case 7: Agricultural land to the north of Trumpington**

Issue	Potential resolution	Note
<p>The National Farmers Union (NFU) has raised concerns regarding the inclusion within the zone of a significant block of productive land to the north of Trumpington and the east of Grantchester (figure 9).</p>	<p>Move the boundary to the east, to run parallel with the A1309 from Trumpington to the City Centre and therefore removing the land to outside the zone.</p>	<p>The boundary currently runs along the River Cam. Moving the boundary to the east is unlikely to impact operation of the STZ. Site specific surveys and further investigation will be required if the project progresses to Full Business Case stage.</p>



*Figure 9 Agricultural land to the north of Trumpington*

**Case 8 National Institute of Agricultural Botany (NIAB) and Crop Science Centre:**

Issue	Potential resolution	Note
<p>The National Farmers Union (NFU) has raised concerns regarding the inclusion within the zone of the NIAB, Crop Science Centre and Seed Handling Unit and other buildings and areas of land (figure 10).</p>	<p>The boundary could be moved south east to exclude Whitehouse Lane and Lawrence Weaver Road, both of which provide access to the various NIAB building and farming facilities.</p>	<p>The exclusion of new housing developments in the area (particularly along Lawrence Weaver Road) would need to be considered, particularly the equity of excluding them.</p> <p>Case 2 – Girton College is located immediately North West of this area. Both issues should be considered in parallel</p>



*Figure 10 Location of NIAB, Crop Science Centre and associated facilities*

## **Summary & Next Steps**

This technical note provides an overview of the identified issues with the STZ boundary as presented in the Making Connections public consultation in Autumn 2022. These localised issues will continue to be considered and resolutions developed in consultation with local stakeholders.