

A stylized map of West Cambridge on a blue background. The map shows various land parcels outlined in white. Several areas are highlighted with white dashed lines and enclosed in white circles. Lines connect these highlighted areas to a central, larger highlighted area, suggesting a network or relationship between different parts of the site.

WEST CAMBRIDGE

OUTLINE PLANNING APPLICATION

SERVICING TECHNICAL NOTE

West Cambridge

Servicing Technical Note

Proposed Servicing Accesses

The outline planning application proposes the use of two servicing accesses at any one point on Clerk Maxwell Road (CMR). These are identified on updated Parameter Plan 03 (August 2017) as I-J (north of CMR), K-L (midway down CMR, as an egress only) and M-N (south of CMR). The University commits to only operating one of the two southern access points at any given point in time and has proposed wording of a condition to secure this.

This note sets out assumptions about the extent of vehicle usage of these servicing access points, based on assumptions around the relocation and growth of the Department of Engineering into the eastern part of the West Cambridge site. In particular, this note focuses on the potential impact on neighbouring properties on two cul-de-sacs accessed off CMR, broadly in the southern part of CMR.

Baseline Position

In assessing any potential impact on neighbouring properties a baseline position needs to be established. Although there are no residential properties fronting onto CMR, the road provides access to two cul-de-sacs (Perry Court and The Lawns). In addition to these properties is 53 Madingley Road which fronts onto Madingley Road, a main arterial route into and out of the city. This dwelling is separated from CMR by well-established planting and a footpath. CMR has well established vegetation along both sides of the road and is currently characterised by (uncontrolled) on-street parking on both sides of the road.

CMR itself currently accommodates around 190 daily car movements on the assumption that 95 on street parking spaces are used. Although not all cars park towards the southern end of CMR, often cars in the southern half will drive down to Perry Court to turn around before driving north (as the on-street parking restricts the possibility of turning before Perry Court), causing additional movements and disturbance for residents.

Behind the landscaped bund within the West Cambridge Site are 560 parking spaces comprising:

- 270 to the rear of the CAPE building and Roger Needham Building (RNB) which are accessed from JJ Thomson Avenue; and
- 290 parking spaces that form the Park and Cycle Facility which is accessed via CMR.

These parking areas account for a significant number of vehicle movements behind the bund each day. The residents at The Lawns and Perry Court currently experience vehicles using CMR as well as hearing noise associated with car use and parking.

Current Servicing on the Trumpington Road Site

The eastern part of the West Cambridge site is likely to accommodate the relocation and growth of the Department of Engineering, which is currently located on the Trumpington Road site. The Trumpington Road site currently accommodates around 27,000sqm GIA of Engineering Floorspace. The on-site facilities manager has confirmed that for the current operations on the Trumpington Road site there are, on average, 30 deliveries per day (150 deliveries per week). This comprises 25 deliveries, and 5 servicing contractors. Of these deliveries larger vehicles account for only 2 or 3 deliveries per week. The remainder are 'white van' or standard vehicle deliveries (all under 7.5 tonnes).

The Move West

It is expected that this floorspace will move over to West Cambridge. The servicing numbers will move across also (Line 1 in Table 1), and will be supplemented by deliveries from CAPE, Nano-science, and the Whittle Lab, all currently on the West Cambridge site and serviced from JJ Thomson Avenue (Line 3). The Roger Needham Building is assumed to be part of the redevelopment and therefore its servicing is included in Line 1 of Table 1. The masterplan allows for significant growth of the department, however this will not necessarily mean a 100% increase in servicing. Some of this growth is to enable existing provision/operations to work in better, less cramped/constrained conditions; a factor of 50% growth in servicing has therefore been applied (Line 2).

Some buildings such as Whittle and buildings close to the East Forum will be able to receive some of the deliveries from JJ Thomson Avenue, it is also likely that some of the buildings to the south could be serviced from a servicing layby space combined with trolley deliveries. A factor (Line 4) has been applied to remove these.

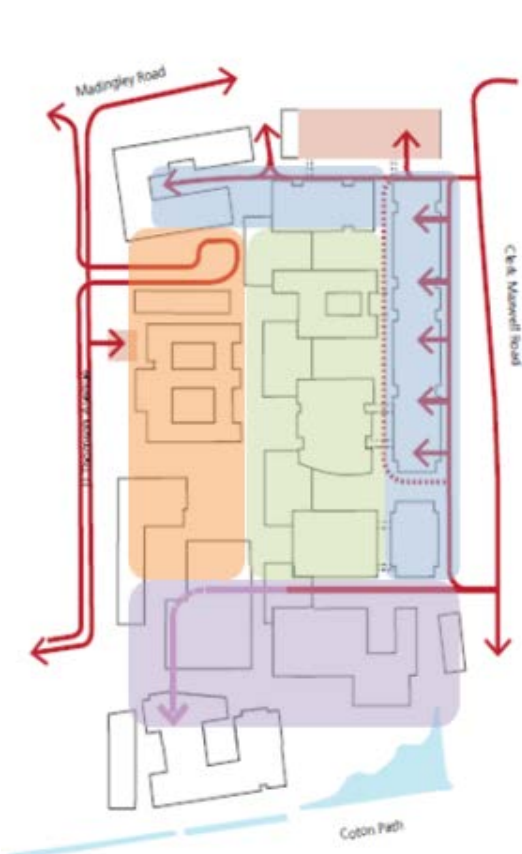
Table 1: Servicing Deliveries to the Eastern Part of the West Cambridge Site

Line	Item	<7.5 Tonne Deliveries per Week	>7.5 Tonne Deliveries per Week
1	Servicing from Trumpington Road transferred across	147	3
2	Accounting for growth	74	2
3	Existing buildings where servicing is transferred to Clerk Maxwell Road	125	2
4	Removing deliveries expected to continue from JJ Thomson Avenue	(25)	0
Total		321	7

**figure includes Civil Engineering*

The figure below visually illustrates the proposed servicing strategy for the eastern part of the West Cambridge site. This area of the site is broken into four zones and the following identifies the servicing strategy for each zone.

Buildings in the Blue Zone will be accessed from the north access (I-J) on CMR. All <7.5 tonne vehicles will enter and exit via access I-J. No <7.5 tonne vehicles servicing the Blue Zone will exit via the southern access (M-N). It is suggested that this could be enforced through use of a physical restriction such as a bollard (or similar) which could be removed/lowered to allow >7.5 tonne vehicles to exit via the southern access (M-N). Larger vehicles need to continue southwards as there is no space within the Blue Zone to provide a turning circle for vehicles >7.5 tonnes. As such, vehicles >7.5 tonnes servicing the Blue Zone will be required to use the northern access (I-J) for entry and egress via the middle egress (K-L) or the southern egress (M-N) once it is delivered in association with the development of the Purple Zone. Use of either egress will require vehicles to cross the east-west cycle link at point (K-L). It is proposed that a banksman will be on hand to manage the movement of all >7.5 tonne vehicle deliveries and one of their key responsibilities will be to ensure that there is no conflict between the delivery and pedestrians/cyclists.



Buildings in the Green Zone will be predominantly serviced from CMR as per the servicing strategy for the Blue Zone. However, some buildings will be able to be serviced from JJ Thomson Avenue via the Orange Zone.

All buildings in the Orange Zone will be serviced from JJ Thomson Avenue.

Buildings in the Purple Zone will be serviced from access M-N and exit through the same point. The M-N access will be located to the south of the east-west cycle link. As such, there will be no conflict between vehicles utilising this access and pedestrians/cyclists on the east-west cycle link. All vehicles entering access point M-N will only be servicing the Purple Zone.

Consideration has been given to utilising JJ Thomson Avenue for servicing buildings in the Green and Blue Zones. However, this would require the construction of service roads that would significantly comprise the environmental quality of the key north-south East Green Link and flexible zone for public realm, pedestrians and cyclists which are proposed as per Parameter Plans 3 and 4. As such, this strategy was discounted due to the adverse impact it would have on the public realm within this part of the site and the increased risk of conflict between servicing vehicles and pedestrians/cyclists.

Consideration was also given to extending the internal link road down to the Purple Zone and removing the need for the southern access (M-N). This would require all delivery vehicles to the Purple Zone to cross the east-west cycle link, significantly increasing the risk of conflict between vehicles and pedestrians/cyclists. This strategy was discounted for this reason.

One of the key visions of the Masterplans is “to create and sustain a high quality place by transforming the physical and social environment for site users and neighbours”. The above strategy will ensure that this objective of the vision is achieved.

Breakdown of Access Point Usage

Table 2: Breakdown of Servicing Deliveries

Access Point Usage	Total	Access I-J	Access M-N
Total Deliveries per Week	328	246	82
<7.5 Tonne Deliveries per Week	321	241	80
>7.5 Tonne Deliveries per Week	7	5	2
Total Deliveries per Day* ¹	65.6	49.2	16.4
<7.5 Tonne Deliveries per Day	64.2	48.2	16
>7.5 Tonne Deliveries per Day	1.4	1	0.4
Total Deliveries per Hour* ²	6.54	4.92	1.64
<7.5 Tonne Deliveries per Hour	6.42	4.82	1.6
>7.5 Tonne Deliveries per Hour	0.14	0.1	0.04

*¹ Assumes Monday-Friday *² Assumes 10hours between 8am-6pm

Analysis

- The majority of deliveries are white van/ courier type vehicles. Vehicles over 7.5 tonnes only account for 2% of deliveries.
- The white van and courier deliveries are not materially different in terms of noise impact than that of a normal vehicle.
- All of the delivery vehicles <7.5 tonne serving the Blue and Green Zones will ingress and egress out of access I-J which will not cause a disturbance issue for residents in the cul-de-sacs which link to CMR.
- It is expected that on average 1.4 >7.5 tonne vehicle deliveries will be made each day. As a worst-case the noise assessment has assessed one >7.5 tonne vehicle delivery per hour which is significantly higher than the number of deliveries forecast. The results of the assessment confirm that there will be less than an adverse noise impact during the daytime on residents at The Lawns and Perry Court.
- Behind the central part of the bund the site currently accommodates 270 parking spaces to the rear of Roger Needham building (assume therefore potential for 540 daily movements). These will be replaced by 49 deliveries per day with similar vehicles (assume 98 movements) with an additional 1 delivery per day by a larger vehicle.
- Around 16.4 deliveries will use the M-N access per day. Assume also that the 1 >7.5 tonne vehicle will exit from M-N having entered I-J. This amounts to an average of 34.8 movements per day or 3.48 per hour using M-N. This is compared to the 190 movements per day associated with the (uncontrolled) car parking on CMR which will be displaced by the West Cambridge Scheme.
- CMR (access I-J) will also provide access to the proposed 540 space multi-storey car park. It is recognised that this will give rise to additional movements in comparison to the existing 290 space Park and Cycle facility. The vehicle movements related to the multi-storey car park have been assessed with regard to the properties at The Lawns and Perry Court. The assessment has confirmed that the sound levels associated with the proposed multi-storey car park are not likely to exceed the proposed Lowest Observed Adverse Effect Level (LOAEL) and are therefore considered acceptable (see Noise and Vibration Chapter of the ES Addendum).

Conclusion

The West Cambridge scheme will result in a net reduction in the number of vehicle movements in the central and southern part of CMR. It is predicted that only 34.8 movements per day will need to travel to access M-N. This includes one vehicle >7.5 tonnes. The assessment undertaken in the Noise and Vibration chapter of the ES Addendum is a worst-case scenario and demonstrates that the impacts on nearby residents will not be unacceptable.

It is acknowledged that there will be an increase in the number of vehicles using the northern part of CMR to access the proposed multi-storey car park when compared to the existing Park and Cycle facility. However, the assessment undertaken in the Noise and Vibration chapter of the ES Addendum demonstrates that the impacts will not be unacceptable.

It is therefore considered that the use of CMR for servicing and access to the multi-storey car park will not result in an unacceptable impact on the residential amenity of properties at The Lawns and Perry Court.

The planning application for the Civil Engineering Building (permitted in March 2017 reference 16/1811/FUL) was accompanied by a 'Servicing and Operational Management Plan (October 2016). The intention of The University of Cambridge's Estate Management team and the Department of Engineering is that as later phases of development within the area east of JJ Thomson Avenue come forward through reserved matters applications this document will be updated. Updates will reference new buildings and any particular amenity issues that need to be managed to ensure the amenity of neighbouring properties is protected. This will enable one comprehensive document to be referenced by all interested parties to understand the proposed servicing arrangements for this area of the West Cambridge site.

AECOM

August 2017

