

Delafield, James

From: John Birch <JBirch@glanvillegroup.com>
Sent: Monday, 26 September 2022 10:02
To: Searle, Jennifer
Cc: George Burgess; David Burne; Justin Kenworthy; Delafield, James; Paul McCann; David Kemp
Subject: [Ext Msg] RE: 8210856 - Land West of Chiswell Green, St Albans
Attachments: M25 Jct 21a Observed Queueing - AM Peak.pdf; M25 Jct 21a Observed Queueing - PM Peak.pdf

Importance: High

Hi Jen

I am writing to provide an update since we last spoke.

M25 Junction 21a

Last Thursday, my colleague David Kemp undertook a drive-by observational study of the M25 Junction 21a during the morning and evening peak periods to observe queue lengths. Attached is a brief report that includes dashcam screenshots to illustrate his findings.

In summary, queue lengths on the slip roads were relatively short such that in both cases queuing did not extend back anywhere close to affecting through traffic on the mainline. During the morning peak there was very little queuing on the anticlockwise slip road and a maximum queue length of around 23 vehicles on the clockwise slip road. In evening peak, there was also very little queuing on the anticlockwise slip road (similar to the morning peak) and much less on the clockwise slip road compared with the morning peak. As such, we are very confident that the proposed residential development at Chiswell Green will not cause queues to extend back to the mainline on the M25 given the very small increases in traffic that are predicted as follows:

AM Peak

Westbound / anticlockwise exit – 0 vehicles

Eastbound exit / clockwise – 9 vehicles

PM Peak

Westbound exit / anticlockwise – 2 vehicles

Eastbound exit / clockwise – 18 vehicles

Furthermore, I have spoken to James Dale at Hertfordshire County Council who confirmed that the approved Radlett rail freight terminal scheme includes proposals to increase capacity at M25 Junction 21a. This is not apparent from the review we have undertaken of that application, so James is going to send over some details of the proposals. We understand that the proposals include signalling the exit slip roads amongst other improvements. The proposed introduction of signal control at the exit slip roads will regulate traffic flows at the junction in a way the current priority arrangement cannot, and this will provide protection against queuing on the slip roads extending back to the mainline. It is also worth noting that the increase in traffic at M25 Junction 21a due to the proposed residential development is very small in comparison with that generated by the rail freight terminal scheme.

We would be grateful if you could consider this additional information and confirm you are satisfied that the proposed residential development will have an immaterial impact at M25 Junction 21a, and that you are able to remove National Highways' holding objection.

Park Street Roundabout

James Dale has confirmed that the County Council does not have any information on file regarding capacity assessments for the Park Street Roundabout as the original application dates from 2009. Therefore,

the best information available to assess the development's impact at this junction is the capacity assessments included in our "Response to National Highways" document. The key point is that our modelling enables a comparison of the situation both with and without the proposed residential development. The results confirm that the impact at the Park Street Roundabout will be minimal, certainly falling well short of severe in the context of paragraph 111 of the NPPF.

James Dale also confirmed that the Section 278 process for the works at this junction will be commencing shortly with the highway improvements expected to be delivered within the next 2 years, i.e. well ahead of any occupations should the proposed residential development in Chiswell Green be permitted. As such, further capacity assessments do not need to be undertaken based on the existing junction layout, so there is no longer a need to carry out queue length surveys at this junction.

Given the passage of time since the rail freight terminal was approved, James Dale also noted that the proposals for the Park Street Roundabout, and the associated junction modelling, will need to evolve during the Section 278 process, taking account of the residential development at Chiswell Green should it be approved, so it is less important that the previously approved model is used as this will shortly be superseded in any event. It is worth noting that James knows this junction very well and is not at all concerned about the impact of the development on it.

To conclude, the junction modelling included in our "Response to National Highways" document should be sufficient to enable the impact of the proposed development to be assessed and conclusions drawn.

I hope this is a useful update and that you are now able to update National Highways' consultation response and remove its holding objection.

However, if you would like to arrange a Teams call to discuss the situation, I would be very happy to arrange one.

Many thanks.

Regards

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From: Searle, Jennifer <Jennifer.Searle@nationalhighways.co.uk>

Sent: 21 September 2022 15:06

To: John Birch <JBirch@glanvillegroup.com>

Cc: George Burgess <George.Burgess@stalbans.gov.uk>; David Burne <david@redingtoncapital.com>; Justin Kenworthy <justin.kenworthy@bartonwillmore.co.uk>; Delafield, James <James.Delafield@carterjonas.co.uk>;

M25 Junction 21a Queueing in the AM Peak Hour – 22 September 2022

1.0 M25 Clockwise (Eastbound) Off-slip – AM Peak

Capacity of existing off-slip / approach length with stationary queue:

- Nearside Lane – 495m or 82 vehicles based on 6m per vehicle
- Offside Lane – 420m or 70 vehicles based on 6m per vehicle

Pass 1 (07:51)

- The queue does not extend back to the M25 mainline (see photo 1.1).
- Only 1 HGV was queuing in the offside lane (see photo 1.2).
- Around 5 vehicles were queueing in the nearside lane in front of the dashcam vehicle with around 3 behind equating to 9 vehicles in total. Around 1-2 vehicles at the front of the queue were stationary with the rest moving queues (see photo 1.2).

Photo 1.1: Pass 1 – End of Slip Road showing No Queueing



Photo 1.2: Pass 1 – Queueing at Roundabout Entry



M25 Junction 21a Queueing in the PM Peak Hour – 22 September 2022

1.0 M25 Clockwise (Eastbound) Off-slip – PM Peak

Capacity of existing off-slip / approach length with stationary queue:

- Nearside Lane – 495m or 82 vehicles based on 6m per vehicle
- Offside Lane – 420m or 70 vehicles based on 6m per vehicle

Pass 1 (16:46)

- The queue does not extend back to the M25 mainline (see photo 1.1).
- Around 5 vehicles were queueing in the nearside lane in front of the dashcam vehicle with around 2 behind equating to 8 vehicles in total. Around 1-2 vehicles at the front of the queue were stationary with the rest moving queues (see photo 1.2).
- Only 1 vehicle was queueing in the offside lane (see photo 1.3).

Photo 1.1: Pass 1 – End of Slip Road showing No Queueing



Photo 1.2: Pass 1 – Queueing on Nearside Lane at Roundabout Entry



Photo 1.3: Pass 1 – Queueing at Roundabout Entry



Pass 2 (17:18)

- The queue does not extend back to the M25 mainline (see photo 1.4). Whilst the clear slip road cannot be seen in the photo, the van and car in front are freely moving.
- In the nearside lane queue there are 6 vehicles, with the first three vehicles stationary and the rest forming a moving queue. There are two vehicles in a stationary queue in the offside lane (see photo 1.5).

Photo 1.4: Pass 2 – End of Slip Road showing No Queueing



Photo 1.5: Pass 1 – Queueing at Roundabout Entry



Pass 3 (17:56)

- The queue does not extend back to the M25 mainline (see Photo 1.6).
- There were around 5 vehicles queueing in the nearside lane and one in the offside lane at the roundabout (see photo 1.7).

Additional Observations

- In addition to the above passes, each time the car with the dashcam headed to Junction 22 to turn around, the queue on the off-slip was observed from the clockwise on-slip. This indicated that at no point did the queue extend back to the M25 mainline. On the three occasions, the queue could not be seen.

Photo 1.6: Pass 3 – End of Slip Road showing No Queueing



Photo 1.7: Pass 3 – End of Queue at Roundabout



2.0 A405 North Orbital Road (Northbound) – PM Peak

Capacity of existing off-slip / approach length with stationary queue:

- Nearside Lane – 1km or 166 vehicles based on 6m per vehicle
- Offside Lane – 1km or 166 vehicles based on 6m per vehicle

Pass 1 (16:49)

- When turning left at the roundabout on the first pass, there was a moving queue in both lanes. The offside queue was around 80m but as it was moving, it only contained 10 vehicles in each lane (see photo 2.1). This queue dissipates quickly as 2 minutes later the queue had dissipated.
- On the full first pass, the nearside lane queues start around 170m back from the give way line, but the queue is mainly a moving queue with around 10 vehicles (see photo 2.3).
- In the offside lane, the queue is shorter at around 8 vehicles in length.

Photo 2.1: Pass 1 – Moving Queue on Approach to the Roundabout (taken from opposite carriageway)



Photo 2.2: Pass 1 – End of Queue at the Roundabout



Pass 2 (17:22)

- On the full second pass, the nearside and offside lane queues are 6 cars long with the first 5 vehicles stationary (see photo 2.3).

Photo 2.3: Pass 2 – End of Queue at the Roundabout



Pass 3 (18:01)

- On the full second pass, the nearside and offside lane queues are around 8 vehicles long, but it was a fully moving queue (see photo 2.4).

Photo 2.4: Pass 3 – End of Queue at the Roundabout



3.0 M25 Clockwise (Eastbound) Off-slip – PM Peak

Capacity of existing off-slip / approach length with stationary queue:

- Nearside Lane – 682m or 113 vehicles based on 6m per vehicle
- Offside Lane – 580m or 96 vehicles based on 6m per vehicle

Pass 1 (17:00)

- The queue does not extend back to the M25 mainline (see photo 3.1).
- The offside lane queue is around 8 vehicles long and the queue is stationary (see photo 3.2).
- The nearside lane queue is around 6 vehicles long and is stationary, however, vehicles can pull away one at a time as vehicle flow on the roundabout allows them to (see photo 3.3). It takes around 70s between joining the back of the queue and passing over the give way line.

Photo 3.1: Pass 1 – End of Slip Road showing No Queueing



Photo 3.2: Pass 1 – End of Queue at the Roundabout



Pass 2 (17:36)

- The queue does not extend back to the M25 mainline (see photo 3.3).
- The nearside lane queue has no vehicles in it, whilst the offside queue has 4 vehicles in it (see photo 3.4).

Photo 3.3: Pass 2 – End of Slip Road showing No Queueing



Photo 3.4: Pass 2 – End of Queue at Roundabout



Pass 3 (18:14)

- The queue does not extend back to the M25 mainline (see photo 3.5).
- There is a stationary queue of 2 vehicles in the nearside lane and 4 vehicles in the offside lane (see photo 3.6).

Photo 3.5: Pass 3 – End of Queue in Nearside Lane



Photo 3.6: Pass 2 – End of Queue at Roundabout



4.0 A405 North Orbital Road (Southbound) – PM Peak

Capacity of existing off-slip / approach length with stationary queue:

- a) Nearside Lane – 682m or 113 vehicles based on 6m per vehicle
- b) Offside Lane – 683m or 113 vehicles based on 6m per vehicle

Pass 1 (17:02)

- The queue does not extend back to the Noke Hotel Roundabout (see photo 4.1) and there is no queueing at the roundabout entries. The queue starts around halfway along the A405 (see photo 4.2). The nearside queue is therefore around 410m long (68 vehicles) in both lanes. The queues are moving queues and move quickly but takes around 4 minutes from back of queue to reach the give way lines.
- The offside queue is around 3-4 vehicles shorter than the nearside queue.
- There was no queueing on the left turn lane at the M25 Junction 21A in each of the passes (see photo 4.3)

Photo 4.1: Pass 1 – No queueing at the Noke Hotel Roundabout



Photo 4.2: Pass 1 – End of the Queue



Photo 4.3: Pass 1 – Queuing at the Give-way Line



Pass 2 (17:37)

- The queue in both lanes does not extend back to the Noke Hotel Roundabout (see photo 4.4) and there is no queuing at the Watford Road roundabout entry. There is a 4-vehicle queue on the North Orbital Road southbound entry, but this is a fast-moving queue. The back of the queue is around halfway along the A405 and is around 410m in length (68 vehicles) in both lanes and the back of the queue is shown in photo 4.5. The queue is fast moving and takes 3 minutes from back of queue to give way markings.
- There was no queuing on the left turn lane at the M25 Junction 21A in each of the passes (see photo 4.6)

Photo 4.4: Pass 2 – No Queueing at the Noke Hotel Roundabout



Photo 4.5: Pass 2 – End of Queue on the A405 (taken from opposite carriageway)



Photo 4.6: Pass 2 – Queueing at the Give Way Line



Pass 3 (18:16)

- The queue in both lanes does not extend back to the Noke Hotel Roundabout (see photo 4.7) and there is no queueing at the roundabout entries. The back of the queue is around halfway along the A405 and is around 365m in length (60 vehicles) in both lanes and the back of the queue is shown in photo 4.8. The queue is fast moving and takes 3 minutes from back of queue to give way markings.
- The offside queue is around 3-4 vehicles shorter than the nearside queue.
- There was no queueing on the left turn lane at the M25 Junction 21A in each of the passes (see photo 4.9)

Photo 4.7: Pass 3 – No Queueing at the Noke Hotel Roundabout



Photo 4.8: Pass 3 – End of Queue on the A405 (taken from opposite carriageway)



Photo 4.9: Pass 3 – Queueing at the Give Way Line



Pass 2 (08:27)

- The queue does not extend back to the M25 mainline (see photo 1.3).
- In the nearside lane queue there are two panel vans queueing with the second in a moving queue. There is one car waiting in the offside lane (see photo 1.4). In addition to these vehicles, there was 1-2 cars behind the car with the dashcam.

Photo 1.3: Pass 2 – End of Slip Road showing No Queueing



Photo 1.4: Pass 2 – End of Queue at Roundabout



Pass 3 (09:00)

- The queue does not extend back to the M25 mainline (see Photo 1.5).
- There was no queueing at the roundabout (see photo 1.6).

Additional Observations

- In addition to the above passes, each time the car with the dashcam headed to Junction 22 to turn around, the queue on the off-slip was observed from the clockwise on-slip. This indicated that at no point did the queue extend back to the M25 mainline. On the first two occasions, the queue could not be seen. On the third occasion, at around 09:15, there was around 23 vehicles (estimated based on the point where the slip road is visible from the on-slip) were observed to be queueing, but it is not known which lanes they were in.

Photo 1.5: Pass 3 – End of Slip Road showing No Queueing



Photo 1.6: Pass 3 – End of Queue at Roundabout



2.0 A405 North Orbital Road (Northbound) – AM Peak

Capacity of existing off-slip / approach length with stationary queue:

- Nearside Lane – 1km or 166 vehicles based on 6m per vehicle
- Offside Lane – 1km or 166 vehicles based on 6m per vehicle

Pass 1 (07:55)

- When turning left at the roundabout on the first pass, there was a long moving queue in both lanes. The offside queue was around 180m or 30 vehicles long, however, all but 2 vehicles were moving queues (see photos 2.1 and 2.2). This queue dissipates quickly as 2 minutes later the queue had dissipated.
- On the full first pass, the nearside and offside lane queues start around 100m back from the give way line, but the queue is mainly a moving queue with around 10 vehicles in each lane (see photo 2.3).

Photo 2.1: Pass 1 –Queueing on Approach to the Roundabout (taken from opposite carriageway)



Photo 2.2: Pass 1 – End of Queue (taken from opposite carriageway)



Photo 2.3: Pass 1 – End of Queue at the Roundabout



Pass 2 (08:31)

- When turning left at the roundabout for the second pass, there was a long moving in both lanes. The offside queue was around 95m or 15 vehicles long, however, all but 2 vehicles were moving queues (see photos 2.1 and 2.2). This queue dissipates quickly as 3 minutes later the queue had dissipated.
- On the full second pass, the nearside and offside lane queues start around 170m back from the give way line, but the queue is mainly a moving queue with around 10 vehicles in each lane (see photo 2.3).

Photo 2.4: Pass 2 – Queueing on Approach to the Roundabout (taken from opposite carriageway)



Photo 2.5: Pass 1 – End of Queue (taken from opposite carriageway)



Photo 2.6: Pass 2 – End of Queue at the Roundabout



3.0 M25 Clockwise (Eastbound) Off-slip – AM Peak

Capacity of existing off-slip / approach length with stationary queue:

- a) Nearside Lane – 682m or 113 vehicles based on 6m per vehicle
- b) Offside Lane – 580m or 96 vehicles based on 6m per vehicle

Pass 1 (08:05)

- The queue does not extend back to the M25 mainline (see photo 3.1).
- The offside lane queue starts around 270m back from give way line at ADS sign and therefore is around 45 vehicles long (see photo 3.2).
- The nearside lane queue starts around 224m back from give way line and therefore is around 37 vehicles long (see photo 3.3).

Photo 3.1: Pass 1 – End of Slip Road showing No Queueing



Photo 3.2: Pass 1 – End of Queue in Offside Lane



Photo 3.3: Pass 1 – End of Queue in Nearside Lane



Pass 2 (08:42)

- The queue does not extend back to the M25 mainline (see photo 3.4).
- The nearside lane queue has around 5 vehicles and there is no queue in offside lane (see photo 3.5).

Photo 3.4: Pass 2 – End of Slip Road showing No Queueing



Photo 3.5: Pass 2 – End of Queue in Nearside Lane



Pass 3 (09:11)

- The queue does not extend back to the M25 mainline (see photo 3.6).
- Offside lane queue has around 6 vehicles and there is no station queue in the nearside lane (see photo 3.6).

Photo 3.6: Pass 3 – End of Queue in Nearside Lane



4.0 A405 North Orbital Road (Southbound) – AM Peak

Capacity of existing off-slip / approach length with stationary queue:

- Nearside Lane – 682m or 113 vehicles based on 6m per vehicle
- Offside Lane – 683m or 113 vehicles based on 6m per vehicle

Pass 1 (08:09)

- The nearside lane queue starts at the Noke Hotel roundabout and therefore is around 113 vehicles long (see photo 4.1). It does not, however, block back over the roundabout.
- The offside lane queue starts around 50m from the Noke Hotel roundabout and therefore is around 106 vehicles long (see photo 4.2).
- The queue, however, is a quick moving queue and vehicles moves continuously, therefore ensuring that the Noke Hotel roundabout does not block. This shown by only one vehicle queueing on Watford Road southbound approach (see Photo 4.3) and no queue on the A405 North Orbital Road southbound approach (see photos 4.4). It took around 7 minutes from joining the queue to reaching the give way markings.
- There was no queueing on the left turn lane at the M25 Junction 21A during both passes (see photo 4.5)

Photo 4.1: Pass 1 – End of Queue in Nearside Lane



Photo 4.2: Pass 1 – End of Queue in Offside Lane



Photo 4.3: Pass 1 – Queuing on Watford Road Southbound Approach



Photo 4.4: Pass 1 – Queueing on A405 North Orbital Road Southbound Approach



Photo 4.5: Pass 1 – No Queueing in Left Turn Lane at M25 Jct 21A



Pass 2 (08:44)

- The queue in both lanes extend back to the Noke Hotel Roundabout and therefore there is around 113 vehicles queueing in both lanes, although as the queue is moving the space taken up per vehicle would be more than 6m (see photo 4.6). It takes 4 minutes from joining the back of the queue to reaching the give way markings.
- On this pass, the queue in the nearside lane does pass the roundabout (see Photo 4.7), however the queue is moving very quickly and so 15s later, the queue has already left the circulatory lane (see Photo 4.8). This shows that the queue is very fast moving and has limited impact on the Noke Hotel Roundabout. There is no queueing on Watford Road and 2 vehicles queueing on the North Orbital Road southbound entry, which indicates that the queue does not impact the adjacent links.

Photo 4.6: Pass 2 – End of Queue in Both Lanes Extends Back to Roundabout



Photo 4.7: Pass 2 – Queue Passing Across the Noke Hotel Roundabout



Photo 4.8: Pass 2 – 15s Later the Queue has Already Left the Roundabout

