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April 6th, 2018

Tim Byrne
JLL
30 Warwick Street
London W1B 5NH

Re: Citroen Site Development; RWDI response to Massing Changes

RWDI Reference #1702809

Dear Tim,

At your request, we have assessed the proposed alterations to the design of the proposed Citroen Site development and any potential effects of this on the predicted wind environment in and around the Proposed Development, in addition to the change in situation of the Capital Interchange Way cumulative scheme.

This letter summarises the outcome of that assessment, which is based on RWDI's professional judgement and experience of assessing wind in the urban environment. The review is also informed by the wind tunnel test results from the 2017 assessment.

## **Summary of changes**

Since the October 2017 study, the massing of the proposed Citroen Site has undergone revisions. As per the drawings received on 22<sup>nd</sup> March 2018, the height of the Core 3 of the proposed development has increased in height by 2 storeys, from 15 storeys to 17 storeys. The massing of the revised scheme can be seen in the image below.

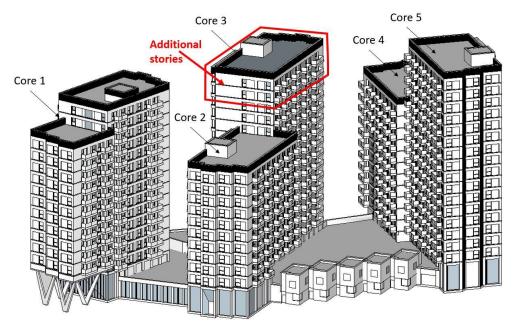


Figure 1: Revised massing of the Proposed Development



In addition to this, the cumulative scheme of Capital Interchange Way to the north-west of the Site has also been removed.

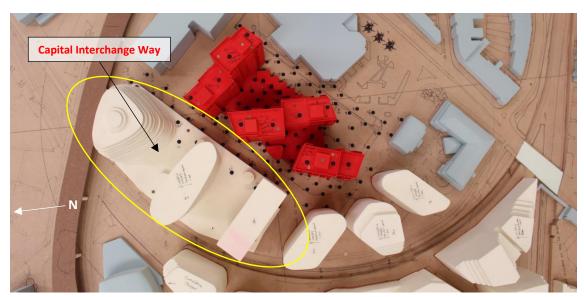


Figure 2: Capital Interchange Way (marked in yellow) to the north-west of the site - view in the wind tunnel (north to the left)

## Assessment of potential impacts related to wind microclimate

We would note that since the changes to the massing are relatively minor (from a wind engineering point of view), the overall behavior of the wind as it interacts with the development will be similar to the earlier iterations of the scheme which were tested in the wind tunnel. In other words, the wind would be expected to travel through the site in a similar way, and the location of areas that were found to be relatively windier or calmer are expected to remain the same.

The magnitude of the local wind speeds would also be similar at most locations including the ground and podium level pedestrian use areas. However, we would expect there to be a small increase in wind speeds locally along the Core 2 terrace to the south of Core 3. This is likely due to an increased downwashing of prevailing winds into this terrace by the now taller southern facade of Core 3. This terrace area (near the Core 3 façade, where the wind effect would likely be significant) however, is used for PV installations and not proposed to be used for any amenity purposes. As such, the increased wind speed is not expected to be a concern and could be considered insignificant.



Due to the removal of the shelter offered by the Capital Interchange Way cumulative scheme, an increase in the wind speeds for the cumulative scenario could be expected. However, a significant adverse effect is not expected as the Capital Interchange Way cumulative scheme is not situated critically relative to the Proposed Development with regards to the prevailing wind direction. Furthermore, as the reported existing scenario considered a vacant site the wind conditions in the vicinity of this scheme (along the northern stretches of the Capital Interchange Way highway) as shown in Figure 3 below, wind conditions would not be expected to differ significantly from this configuration. As such, all areas in and around the site would still be expected to have the desired wind conditions as predicted for Configuration 2, and Configuration 3 of the 2017 assessment.

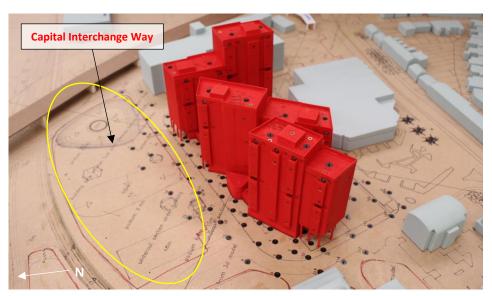


Figure 3: Vacant existing Capital Interchange Way Site (marked in yellow) to the north-west of the site - view in the wind tunnel (north to the left)

Overall, we could conclude that, revised massing of the proposed development and removal of the Capital Interchange Way cumulative scheme is not likely to significantly alter the wind environment predicted for the proposed development and that the recommended mitigation measures of the 2017 assessment would still be expected to be beneficial.

We trust this is helpful.

Yours truly,

Anjali KrishnanDaniel HackettStefan AstleyProject EngineerSenior EngineerProject Manager