

7 Wind Microclimate

7.1 Scope of Assessment

- 7.1.1 This chapter sets out the implications of the confirmed massing and details outlined within the proposed RMA for Plot 1 of the proposed Bishopsgate Goodsyard masterplan, for the findings of the Wind Microclimate Chapter as set out in the 2019 ESA.
- 7.1.2 The Wind Microclimate Chapter and conclusions as reported in the 2019 ESA have been considered in respect of the development proposed within Plot 1. A full quantitative assessment of Plot 1 within the context of the complete consented masterplan, with both existing and cumulative surrounding contexts in place, has been carried out via computational fluid dynamics (CFD) modelling by Architectural Aerodynamics Limited (ArcAero). This is set out in full within ArcAero report 0360420rep1v1, dated 8th December 2023, appended to this Environmental Compliance Report as **Appendix D**.
- 7.1.3 The chapter describes: any changes to legislation, policy and guidance, the changes to baseline conditions, assessment of effects of the Reserved Matters Application, the mitigation measures required to prevent, reduce or offset any significant adverse effects and the cumulative effects associated with the Proposed Development in combination with other developments within 1 km of the Site.
- 7.1.4 Cumulative effects have been considered, taking into account any new schemes since approval. An updated consideration of effect interactions is provided in Environmental Compliance Report **Chapter 10: Cumulative effects and Conclusions**.

7.2 Changes to Legislation, Policy and Guidance since the 2019 ESA

- 7.2.1 There have been updates to national, regional and local planning policy since the 2019 ESA, which are listed below:
- The National Planning Policy Framework (2023)
 - The London Plan (2021)
 - The London Borough of Tower Hamlets Local Plan 2031 (2020)
 - The London Borough of Hackney Local Plan 2033 (2020)
 - The National Planning Practice Guidance

7.2.2 However, these do not have any bearing on the technical assessments previously considered.

7.3 Changes to Baseline Conditions

7.3.1 The CFD modelling informing this chapter has used a 2023 baseline. The following developments that were assessed as part of the cumulative scenario for wind microclimate in the 2019 ESA are now built out and included in the baseline:

- 183-187 Shoreditch High Street

7.3.2 There are no changes to the baseline conditions on Site relevant to wind microclimate, with the microclimate predicted to be suitable for a mixture of short-term and long-term standing / sitting, and thus suitable for existing pedestrian activities.

7.4 Implications to Effects Reported in 2019 ESA

7.4.1 As set out in **Chapter 1: Introduction and Details of Plot 1**, Plot 1 is expected to be occupied relatively late within the construction programme, at a point when the superstructure of the rest of the masterplan is expected to be in place. As such, the details of Plot 1 have been tested in the context of the surrounding completed masterplan, including the details of Plots 2 and 7 and the maximum parameters for the remaining outline plots, as set out in the 2019 ESA.

7.4.2 The 2019 ESA tested the wind microclimate effects of the Revised Bishopsgate Goodsyard Masterplan. This reported that for the completed masterplan, with embedded mitigation measures, conditions throughout were predicted to be suitable for existing and planned activities (negligible to moderate beneficial), with the exception of conditions on the Plot 2 western corner terraces, which were one category windier than suitable for their proposed use (minor adverse).

7.4.3 These findings have been reconfirmed by the recent CFD modelling of the masterplan incorporating the detailed Plot 1. This assessment has found that across the masterplan conditions are substantially suitable, with conditions around the immediate vicinity of Plot 1 suitable for comfortable thoroughfare, ingress / egress and waiting at ground and platform levels, and for both occupant movement and recreational activities within the elevated terraces on Plot 1. Detailed modelling of Plot 2 terraces have not been repeated however it is expected that these findings will remain as set out in the 2019 ESA. In summary, the findings of the 2019 ESA remain valid with respect to wind microclimate.

7.5 Requirement for Additional Mitigation

7.5.1 The wind microclimate assessment (**Appendix D**) identified a requirement for additional planters at the elevated Level 6 and Level 13 terraces and additional trees on Level 13. Planters would contain shrubs with a combined planter and shrub height of 1,500 mm. Level 13 roof terrace trees are a mixture of 3 m and 4 m tall and deciduous. The location of these are shown in **Appendix D Figures 2.1-2.3**. These are incorporated into the **Landscape and Public Realm Strategy** submitted with this RMA and accompanying landscaping drawings for levels 5,6 and 12 (as listed in **Table 2.2 of Appendix D**) and should be secured by planning condition. With these mitigation measures in place the suitable conditions set out in paragraph 7.4.2 are achieved.

7.6 Consideration of any new Cumulative Schemes

7.6.1 A subset of committed developments located within the study area have been assessed. The cumulative schemes that have been assessed as part of the recent CFD assessment are as follows:

- Shoreditch High Street (2015/2403) (Scheme #17 in **Chapter 1, Figure 1.13**)
- Brick Lane (PA/20/00415) (Scheme #32 in **Chapter 1, Figure 1.13**)
- Huntingdon's Industrial Estate (PA/20/00557) (Scheme #3 in **Chapter 1, Figure 1.13**)
- Hewett Street (2021/0406) (Scheme #22 in **Chapter 1, Figure 1.13**)
- Truman's Brewery (PA/21/00140/NC) (Scheme #1 in **Chapter 1, Figure 1.13**)

7.6.2 The following committed developments were excluded because they have already been substantially constructed and were therefore included in the baseline for the assessment:

- Scheme #2 Blossom Street (PA/14/03548, PA/19/01608) - also included in the baseline in the 2019 ESA;
- Scheme # 14 The Stage (Plough Yard) – also included in the baseline in the 2019 ESA; and
- Scheme #29 Shoreditch Village (183-187 Shoreditch High Street) – this was assessed in the cumulative scenario in the 2019 ESA.

7.6.3 The assessment has confirmed that the cumulative schemes present, the suitability of conditions is materially unchanged, and that conditions continue to be suitable with no adverse or significant effects.

7.7 Summary and Conclusion

- 7.7.1 Upon the introduction of Plot 1 within the context of the complete consented masterplan, with both existing and cumulative surrounding contexts in place, a suitable wind microclimate is predicted to be achieved. As with the 2019 ESA, no significant or adverse effects are anticipated at ground or platform levels across the Proposed Development or at elevated levels within Plot 1.