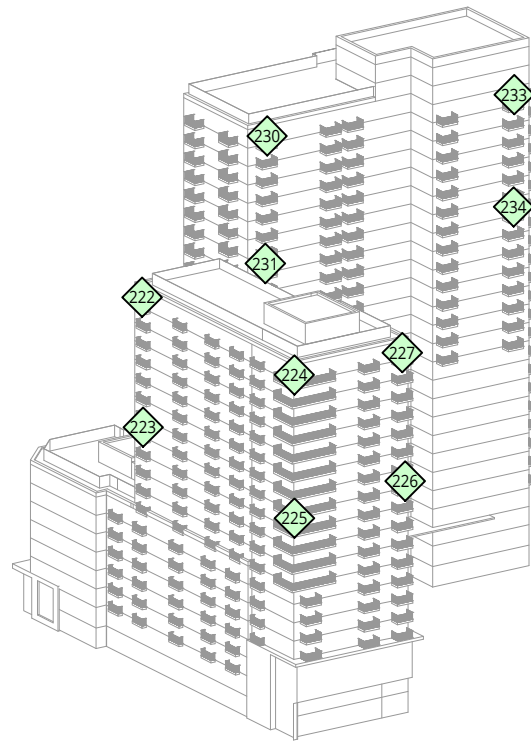
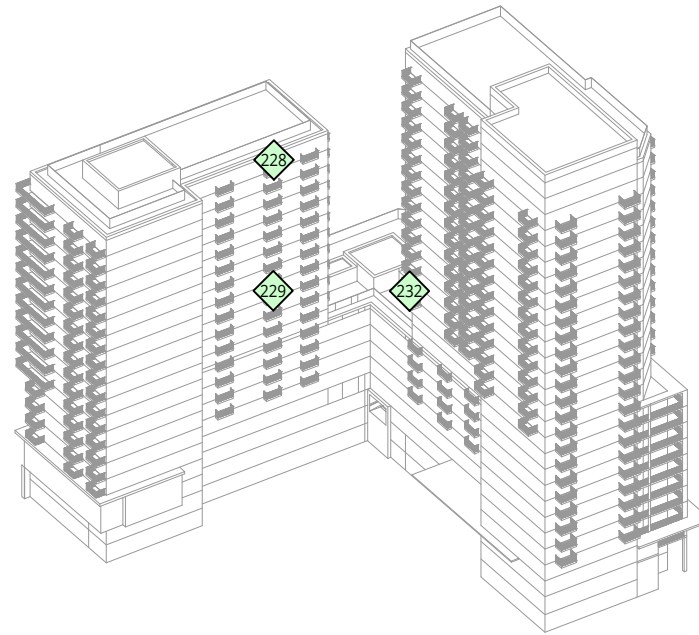
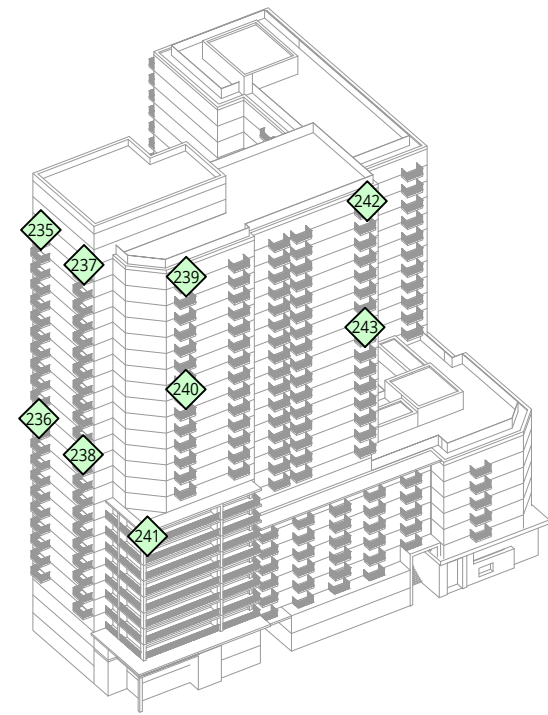




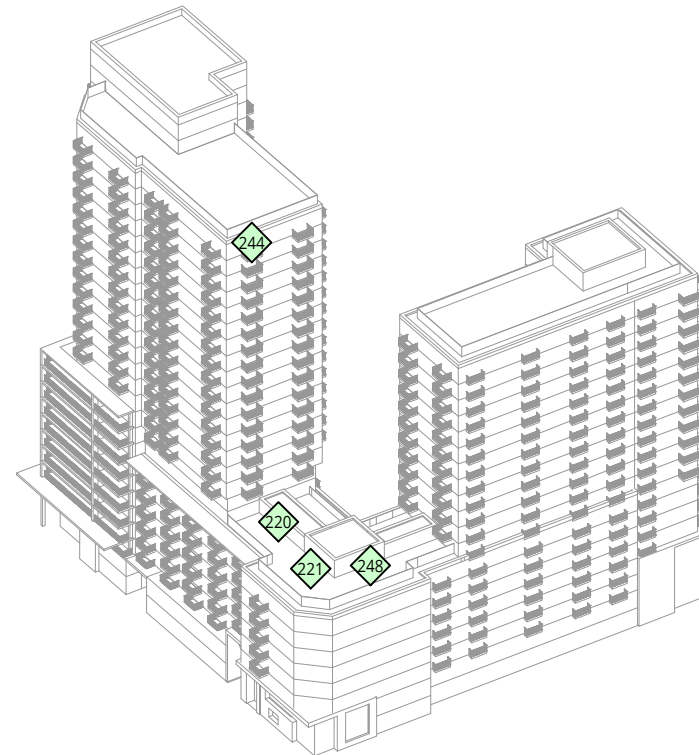
SOUTH / WEST



NORTH / EAST



NORTH / WEST



SOUTH / EAST

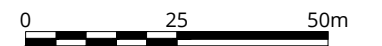
LEGEND:

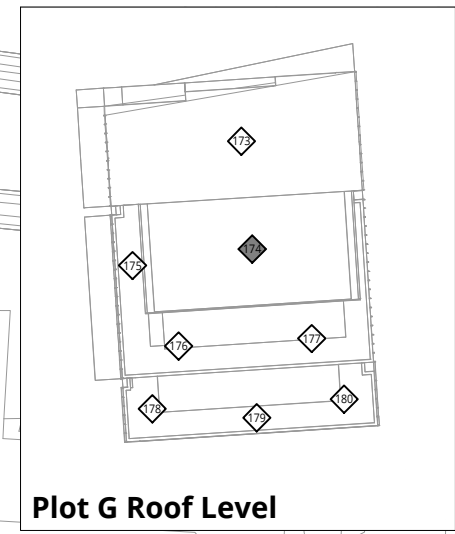
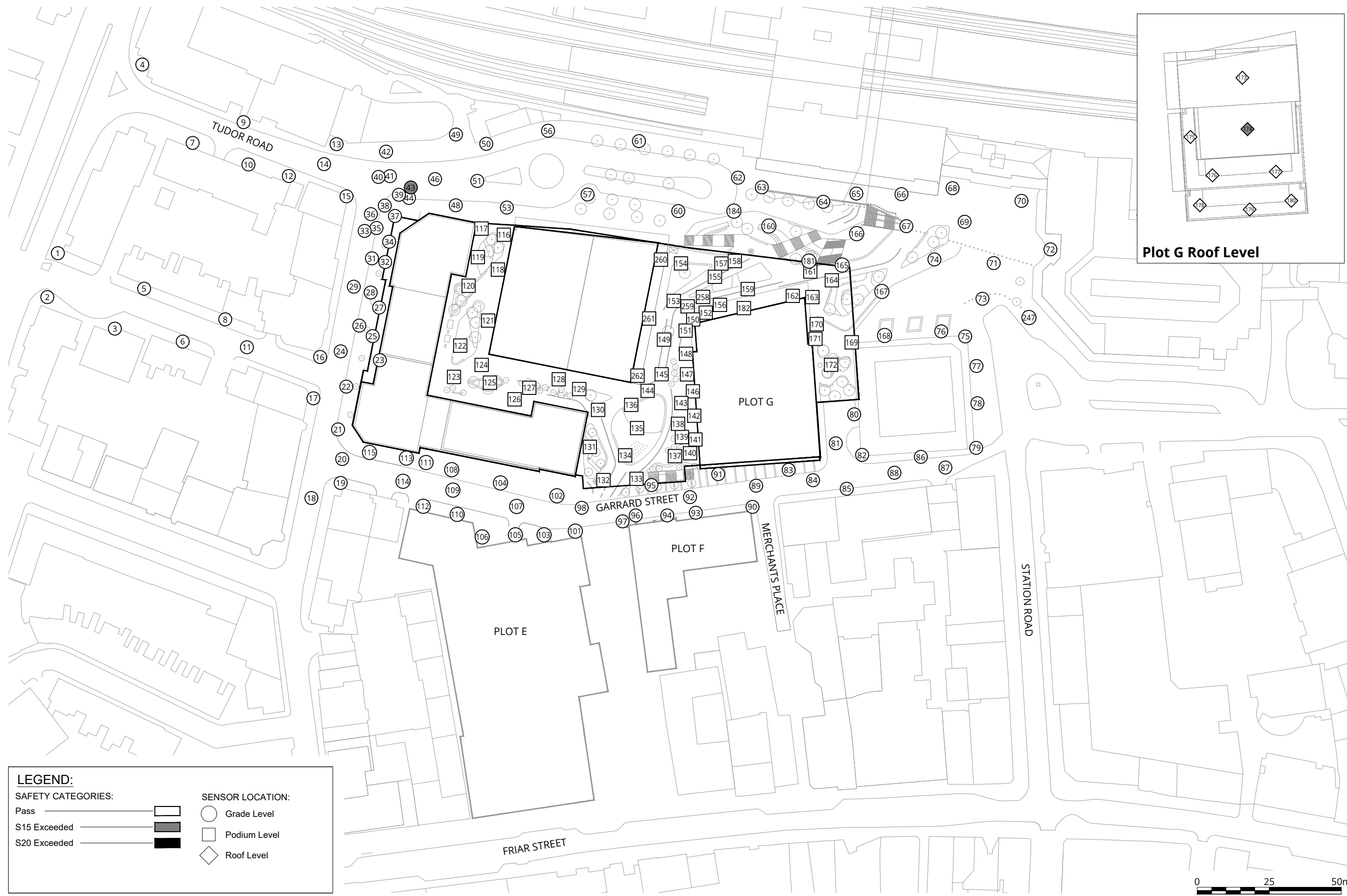
LDDC COMFORT CATEGORIES:

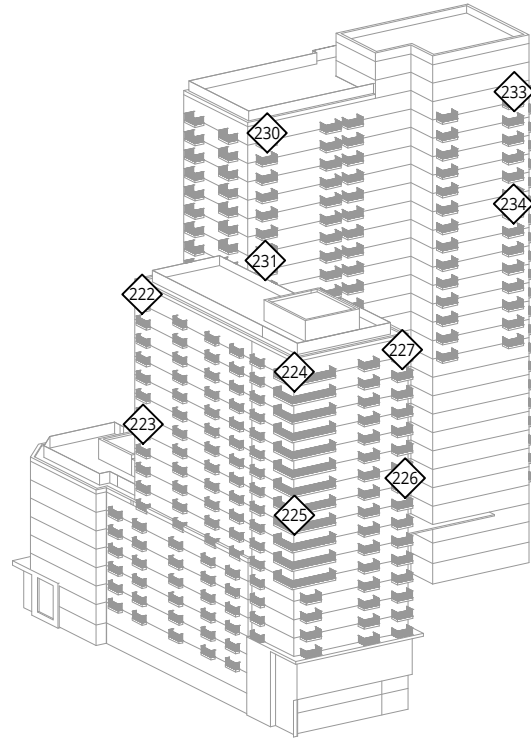
Sitting	
Standing	
Strolling	
Walking	
Uncomfortable	

SENSOR LOCATION:

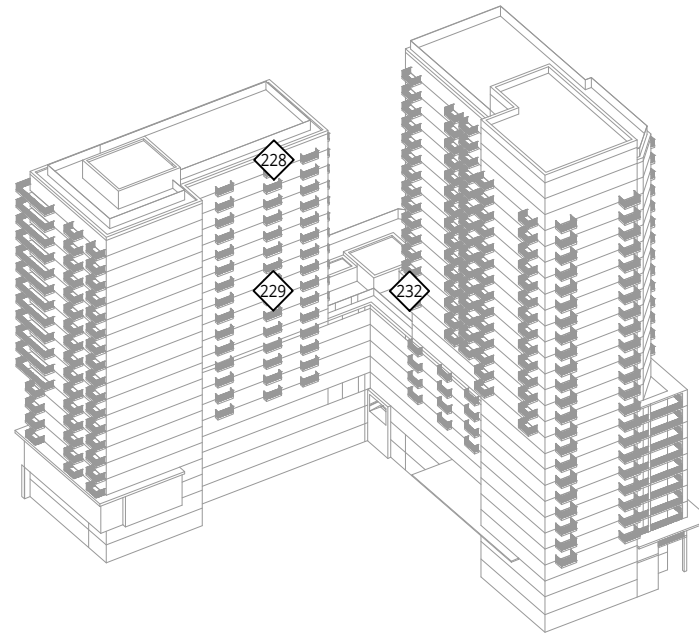
	Grade Level
	Podium Level
	Balcony/Roof Level



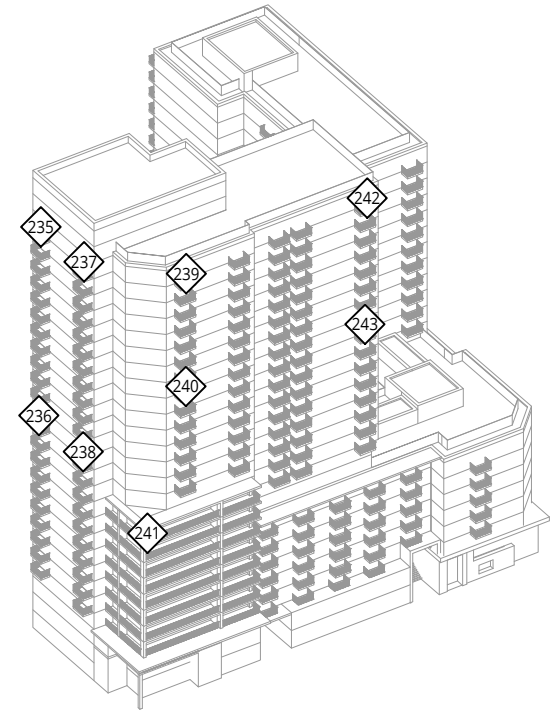




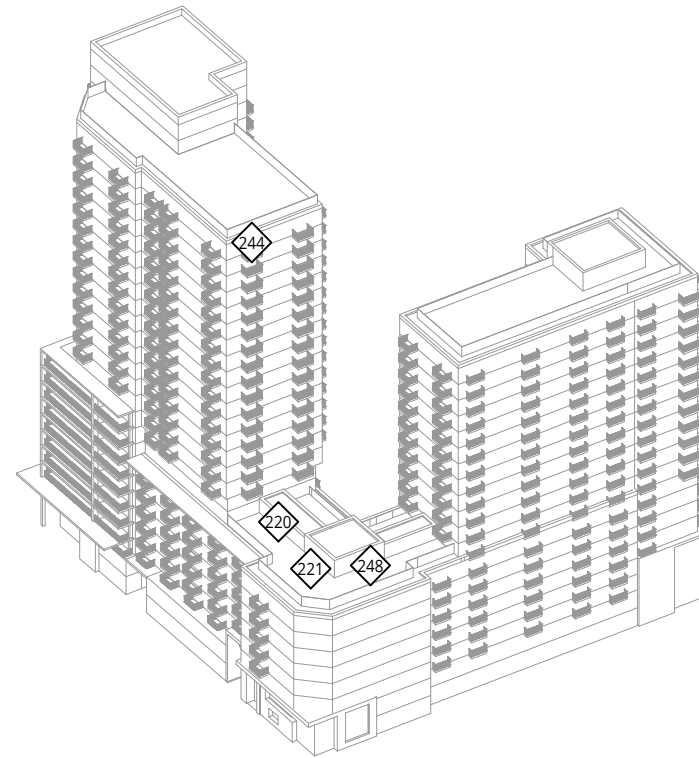
SOUTH / WEST



NORTH / EAST



NORTH / WEST



SOUTH / EAST

LEGEND:

SAFETY CATEGORIES:

Pass ———— 

S15 Exceeded ———— 

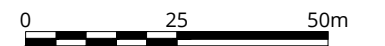
S20 Exceeded ———— 

SENSOR LOCATION:

 Grade Level

 Podium Level

 Roof Level



Pedestrian Wind Safety Conditions - Isometric Views
Mitigation: Development Option 3 with Landscaping, Mitigation and Cumulative Surrounding Buildings
Annual

Station Hill - Reading, UK

Project #1803688

Drawn by: MW Figure: 32

Approx. Scale @A3: 1:1250

Date Revised: Sep. 17, 2019



APPENDIX A



APPENDIX A: WIND TUNNEL PHOTOGRAPHS



Figure 33: Existing Site with the Existing Surrounding Buildings – View in the Wind Tunnel (from the north)



Figure 34: Existing Site with the Existing Surrounding Buildings – View in the Wind Tunnel (from the south)



Figure 35: Interim Development Scenario with Landscaping and the Existing Surrounding Buildings – View in the Wind Tunnel (from the north)



Figure 36: Interim Development Scenario with Landscaping and the Existing Surrounding Buildings – View in the Wind Tunnel (from the west)

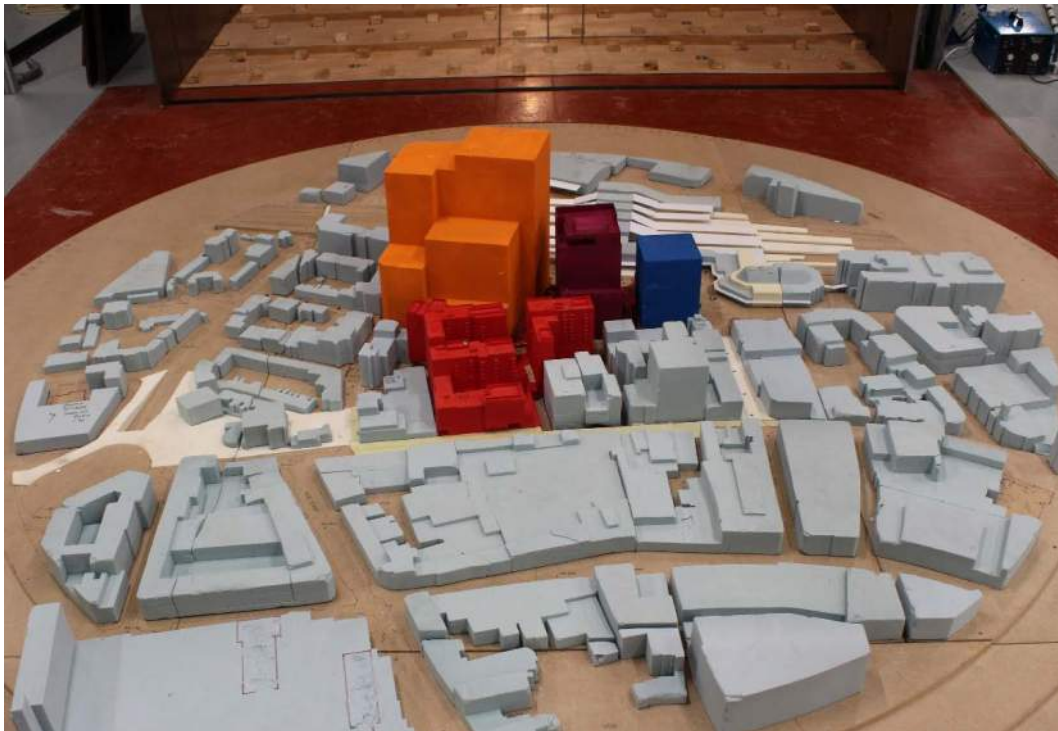


Figure 37: Completed Development Scenario with the Existing Surrounding Buildings – View in the Wind Tunnel (from the south)



Figure 38: Maximum Parameter Development with the Existing Surrounding Buildings – View in the Wind Tunnel (from the south-west)

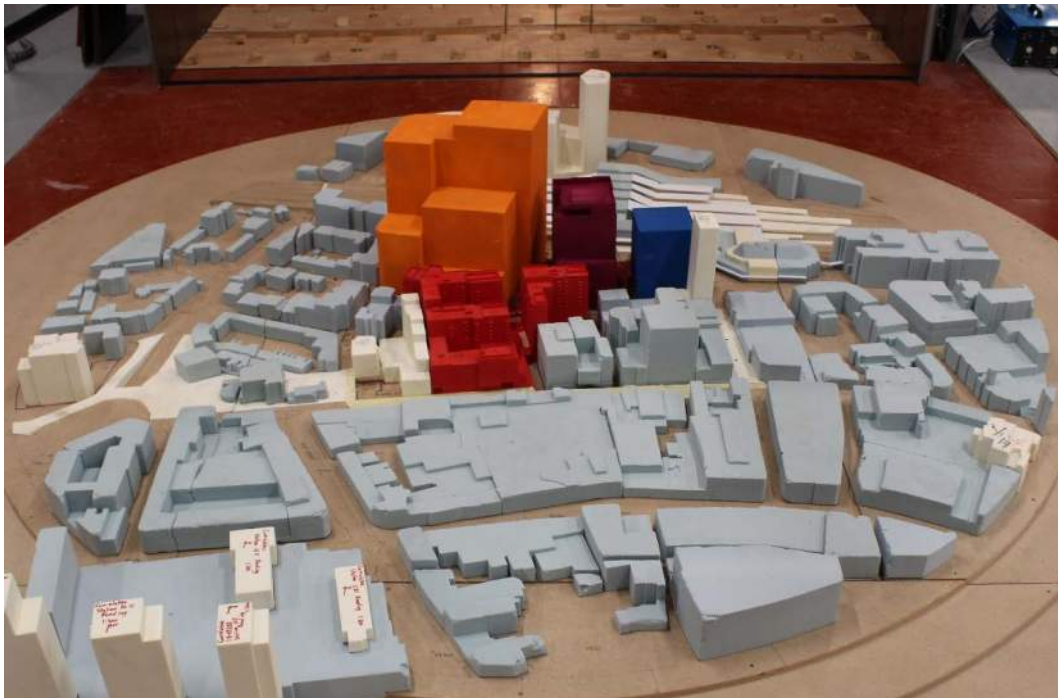


Figure 39: Maximum Parameter Development with the Cumulative Surrounding Buildings – View in the Wind Tunnel (from the south)



Figure 40: Proposed Development with Landscaping, Embedded Mitigation and the Cumulative Surrounding Buildings – View in the Wind Tunnel (from the south-west)



Figure 41: Interim Development Scenario with Landscaping, Wind Mitigation and the Existing Surrounding Buildings – View in the Wind Tunnel (from the south)



Figure 42: Interim Development Scenario with Landscaping, Wind Mitigation and the Existing Surrounding Buildings – View in the Wind Tunnel (from the west)



Figure 43: Development Option 1 with Landscaping, Wind Mitigation and the Cumulative Surrounding Buildings – View in the Wind Tunnel (from the south)



Figure 44: Development Option 1 with Landscaping, Wind Mitigation and the Cumulative Surrounding Buildings – View in the Wind Tunnel (from the south-west)



Figure 45: Development Option 2 with Landscaping, Wind Mitigation and the Cumulative Surrounding Buildings – View in the Wind Tunnel (from the south)



Figure 46: Development Option 2 with Landscaping, Wind Mitigation and the Cumulative Surrounding Buildings – View in the Wind Tunnel (from the south-west)



Figure 47: Development Option 3 with Landscaping, Wind Mitigation and the Cumulative Surrounding Buildings – View in the Wind Tunnel (from the south)



Figure 48: Development Option 3 with Landscaping, Wind Mitigation and the Cumulative Surrounding Buildings – View in the Wind Tunnel (from the south-west)

APPENDIX B



APPENDIX B: METEOROLOGICAL DATA

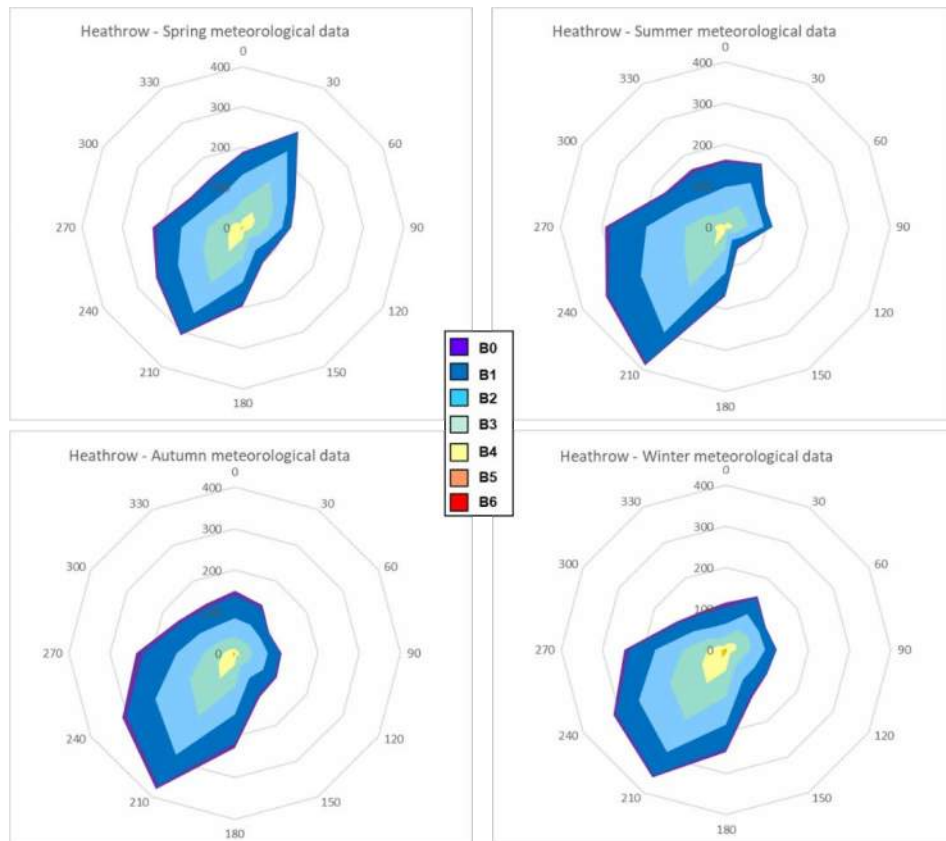


Figure 49: Seasonal wind roses for London Heathrow airport (in Beaufort Force) - (Radial axis indicates the hours for which the stated Beaufort Range is exceeded)

Table 5: Beaufort Land Scale

Beaufort Force	Hourly Average Wind Speed (m/s)	Description of Wind	Noticeable Wind Effect
0	< 0.45	Calm	Smoke rises vertically.
1	0.45 – 1.55	Light Air	Direction shown by smoke drift but not by vanes.
2	1.55 – 3.35	Gentle Breeze	Wind felt on face; leaves rustle; wind vane moves.
3	3.35 – 5.60	Light Breeze	Leaves & twigs in motion; wind extends a flag.
4	5.60 – 8.25	Moderate Breeze	Raises dust and loose paper; small branches move.
5	8.25 – 10.95	Fresh Breeze	Small trees, in leaf, sway.
6	10.95 – 14.10	Strong Breeze	Large branches begin to move; telephone wires whistle.
7	14.10 – 17.20	Near Gale	Whole trees in motion.
8	17.20 – 20.80	Gale	Twigs break off; personal progress impeded.
9	20.80 – 24.35	Strong Gale	Slight structural damage; chimney pots removed.
10	24.35 – 28.40	Storm	Trees uprooted; considerable structural damage.
11	28.40 – 32.40	Violent Storm	Damage is widespread; unusual in the U.K.
12	> 32.40	Hurricane	Countryside is devastated; only occurs in tropical countries.

APPENDIX C



APPENDIX C: MITIGATION DETAIL PHOTOGRAPHS



Figure 50: Interim Development Scenario – Sculpture, 7m tall by 2m nominal width, approximately 50% overall porosity, located south of western podium access stairs



Figure 51: Interim Development Scenario – Planter north of north-western corner of Plot G moved west by 3m with additional 7m tall tree, 1.5m height dense planting and two elevated porous (approximately 50% open) screens



Figure 52: Interim Development Scenario – Two 7m tall deciduous trees added to the north and the south of the intended route to the Plot C entrance with 1.5m tall dense planting



Figure 53: Interim Development Scenario – Three 7m tall deciduous trees added along southern edge of podium at south-western corner of Plot G



Figure 54: Interim Development Scenario – Three 7m tall deciduous trees added north of proposed loading bay on northern side and two 5m tall deciduous trees in planters between proposed Phase 1 trees on southern side of Garrard Street west of Merchant's Place



Figure 55: Interim Development Scenario – Dense planting on upper terrace, 1.5m in height



Figure 56: Completed Development Options – Porous canopy on Plot G western elevation, full height porous (up to 50% open) screening at southern end of Plot C undercut and dense planting bordering amenity/landscaping areas to west of Plot C



Figure 57: Completed Development Options – Porous canopy around north-western corner of Plot A, chamfer at Plot A north-western corner ground floor and 1.5m tall porous (up to 50% open) balustrade



Figure 58: Completed Development Options – Dense planting backing amenity spaces between Plot A and Plot C



Figure 59: Completed Development Options –Dense planting at northern edge of podium between Plot A and Plot C and between Plot C and Plot D