

Highways Department / Railway Development Office

Agreement No. CE 80/2023 (CE)

Smart and Green Mass Transit System in East Kowloon – Investigation, Design and Construction

**Air Ventilation Assessment Report – Zoning Amendment for Topside Development
at Depot Site, Po Lam Road, Kwun Tong**

Reference: REP-C121-4-D02

Draft 02 | 19 June 2025

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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Appendix A

Planned Developments

Appendix B

Master Layout Plans of Indicative Development Scheme and Revised Indicative Development Scheme

Appendix C

Contour Plots of Velocity Ratio (VR)

Appendix D

Vector Plots of Velocity Ratio (VR)

Appendix E

Velocity Ratio (VR) at Test Points

1. Introduction

1.1 Background

- 1.1.1 The northern uphill areas of Kwun Tong are densely populated, with busy road traffic in the district. With the gradual completion of the housing development projects in the areas, the demand for transportation will continue to increase. It is considered necessary to provide a convenient and fast smart and green mass transit system connecting to the existing railway network and to facilitate the commuting of the public to and from different areas of Kowloon and Hong Kong Island.
- 1.1.2 The 2023 Policy Address has announced to implement a Smart and Green Mass Transit System in East Kowloon (SGMTS-EK) with an aim to improving the overall transportation of East Kowloon and unleashing development potential. The Project has also been incorporated in the "Hong Kong Major Transport Infrastructure Development Blueprint" (Blueprint) promulgated by the Transport and Logistics Bureau in December 2023.
- 1.1.3 The area located to the east of Po Tat Estate has been identified as a suitable depot site for the SGMTS-EK, where Ma Yau Tong Station will also be located. Topside residential development has been explored with a view to generating maximum funding support for SGMTS-EK, making reference to the "Rail plus Property" model used on railway projects.
- 1.1.4 A zoning amendment exercise will be required to rezone the two associated land parcels, Main Site (currently zoned "Green Belt (GB)") and the Northern Site (currently zoned "Open Space (O)") on the Approved Kwun Tong (North) Outline Zoning Plan No. S/K14N/15 into an appropriate zoning in order to enable the proposed Topside Residential Development with Depot on site.
- 1.1.5 This Air Ventilation Assessment (AVA) – Initial Study (termed as the Study hereafter) is prepared to support the proposed rezoning of Main Site and the Northern Site.

1.2 Objective of the Study

- 1.2.1 The Study was carried out in accordance with the "*Technical Circular No. 1/06 on Air Ventilation Assessments*" (termed as *AVA Technical Circular* hereafter), jointly issued by the Housing, Planning and Lands Bureau (HPLB) and the Environment, Transport and Works Bureau (ETWB) on 19th July 2006.
- 1.2.2 An AVA – Initial Study was conducted by using Computational Fluid Dynamics (CFD) techniques. It aims to achieve the following tasks:
- Initially assess the characteristics of the wind availability of the site;
 - Give a general pattern and a rough quantitative estimate of the wind performance at the pedestrian level reported using wind Velocity Ratio (VR);
 - Identify the air paths within the site and ascertain their effectiveness; and
 - Identify good design features and problem areas, if any, and recommend mitigation measures.

2. Application Site

2.1 Characteristics of Application Site and its Surrounding Area

- 2.1.1 The Application Site consists of 2 nos. land parcels, Main Site and the Northern Site, separated by Po Lam Road running from NE-SW direction, as shown in Figure 2.2.1. The Application site is located at a hilly terrain with site formation at +90mPD to +173mPD, surrounded by steep slope of Tai Sheung Tok (+400mPD) to its north and slightly gentle slope of Black Hill (+304mPD) to its further south and southwest.
- 2.1.2 The Application Site and its surrounding area are generally located at high elevation up on the hill. To the east and southeast of the Application Site is low-rise Ma Yau Tong Village (+138 to 178 mPD). To the immediate south of the Application Site is flat open space provided by Tseung Kwan O Tunnel Road at lower elevation, connecting with Tsung Kwan O Road, extended in further towards SW direction. Apart from the road network near Tseung Kwan O Road, to the southwest and northwest quadrants are dominated by high-rise densely built-up residential clusters in Lam Tin, Sau Mau Ping and Anderson Road, including Hong Wah Court (+190~198mPD), Hing Tin Estate (+196mPD), Lam Tin Estate (+204mPD), Tak Tin Estate (+114~209mPD); Po Tat Estate (+202~236mPD), Sau Mau Ping South Estate (+207mPD), Sau Mau Ping Estate (+173~227mPD); On Tat Estate (+239~280mPD) and Anderson Road Quarry Site (+207~290mPD).

2.2 Planned Development

- 2.2.1 According to the GIS Data, Town Planning Board and GeoInfo Map, there are 15 nos. planned developments within the surrounding area as identified in Section 3.2. This planned development has also been considered and modelled in this AVA – Initial Study. The locations of these planned developments are shown in Figure 2.2.2. The sources for each of the planned developments are summarized in Table 2.2.1. The detailed layout of the planned developments can refer to Appendix A.

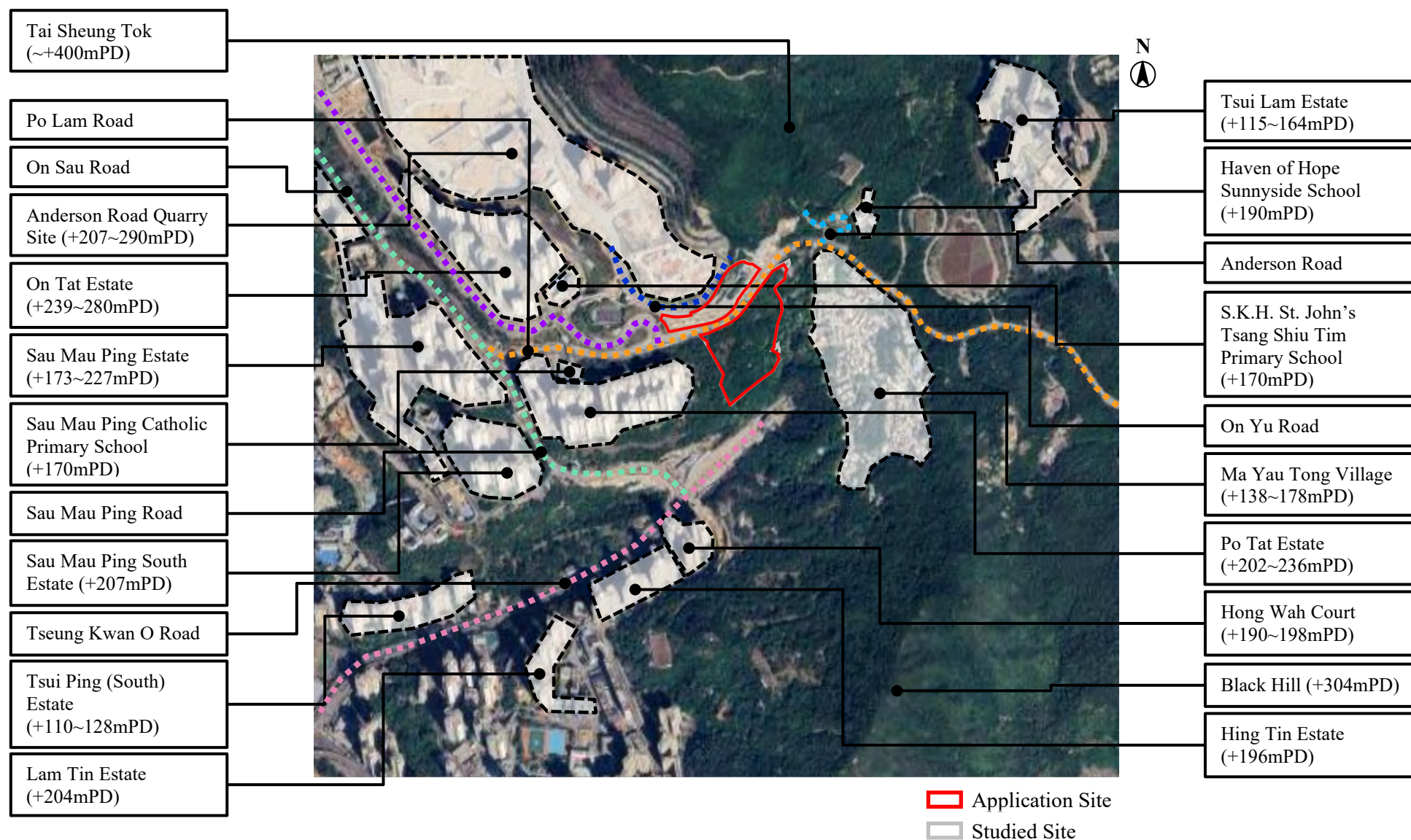


Figure 2.2.1 Site Location and Surrounding Developments (Source: Google Map)

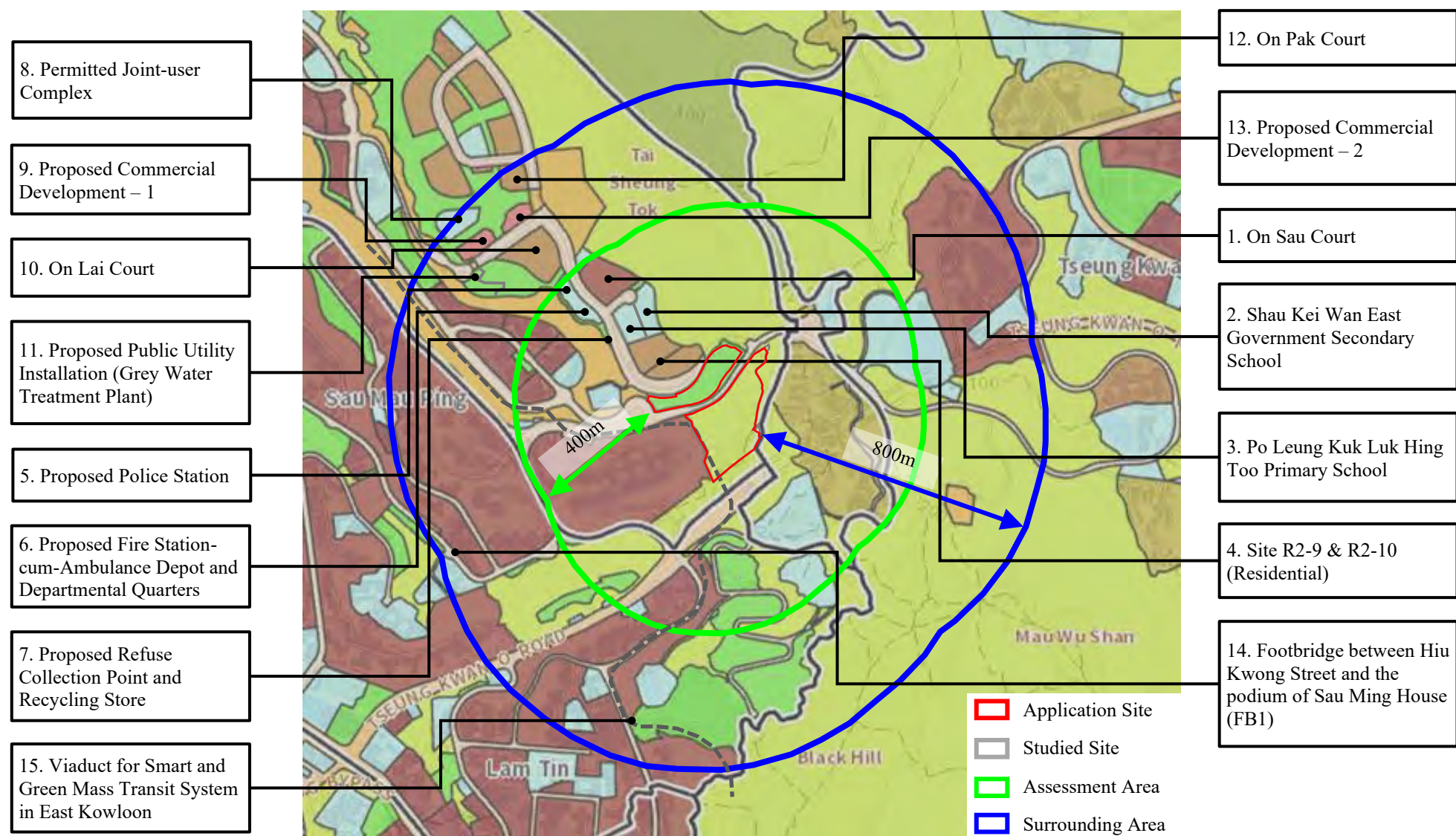


Figure 2.2.2 Planned Developments in Surrounding Area

Table 2.2.1 Sources of Planned Developments in Surrounding Area

	Planned Development	Building Height
1	On Sau Court	+290.00mPD (Refer to OZP Statutory Plans No. S/K14N/15)
2	Shau Kei Wan East Government Secondary School	8 Storeys (Refer to OZP Statutory Plans No. S/K14N/15)
3	Po Leung Kuk Luk Hing Too Primary School	8 Storeys (Refer to OZP Statutory Plans No. S/K14N/15)
4	Site R2-9 & R2-10 (Residential)	+250.00mPD & +275.00mPD (Refer to OZP Statutory Plans No. S/K14N/15)
5	Proposed Police Station	+230.00mPD (Refer to OZP Statutory Plans No. S/K14N/15)
6	Proposed Fire Station-cum-Ambulance Depot and Departmental Quarters	+249.95mPD (Refer to Town Planning Board, 729th Agenda and Papers, Section 16 Application No. A/K14/827)
7	Proposed Refuse Collection Point and Recycling Store	+206.35mPD (Refer to Legislative Council, Public Works Subcommittee (Results) 26 April 2023, Paper No.: PWSC(2023-24)4)
8	Permitted Joint-user Complex	+211.95mPD (Refer to Applications for Planning Permission No. A/K14/812)
9	Proposed Commercial Development – 1	+200.00mPD (Refer to OZP Statutory Plans No. S/K14N/15)
10	On Lai Court	+266.00mPD (Refer to Applications for Planning Permission No. A/K14/797)
11	Proposed Public Utility Installation – Grey Water Treatment Plant	+182.00mPD (Refer to Applications for Planning Permission No. A/K14/769)
12	On Pak Court	+245.00mPD (Refer to OZP Statutory Plans No. S/K14N/15)
13	Proposed Commercial Development – 2	+205.00mPD (Refer to OZP Statutory Plans No. S/K14N/15)
14	Footbridge between Hiu Kwong Street and the podium of Sau Ming House (FB1)	5 Storeys
15	Viaduct for Smart and Green Mass Transit System in East Kowloon	N/A

2.3 Studied Schemes

2.3.1 Two schemes, namely Baseline Scheme, and Indicative Development Scheme, were studied under this AVA – Initial Study. Each of the studied scheme will be described in following sub-sections. In order to enhance the ventilation performance as well as address other departmental comments and site constraints, the MLP has been revised. The ventilation performance of the Revised Indicative Development Scheme (i.e. latest MLP) has been briefly discussed in Section 4.

A. Baseline Scheme

- 2.3.2 The Baseline Scheme is an OZP compliant scheme with the current zoning of the Studied Site, i.e. “GB” for the Main Site and “O” for the Northern Site, with the Approved Kwun Tong (North) Outline Zoning Plan No. S/K14N/15, as shown in Figure 2.3.1. According to the Statutory Plan, the “GB” zone is primarily designated as greenbelt, which is primarily for the conservation of existing natural environments amid the built-up areas/at the urban fringe, to safeguard it from encroachment by urban type development and to provide additional outlets for passive and recreational activities. For “O” zone, it is intended primarily for the provision of outdoor open-air public space for active and/or passive recreational uses serving the needs of local residents as well as the general public.

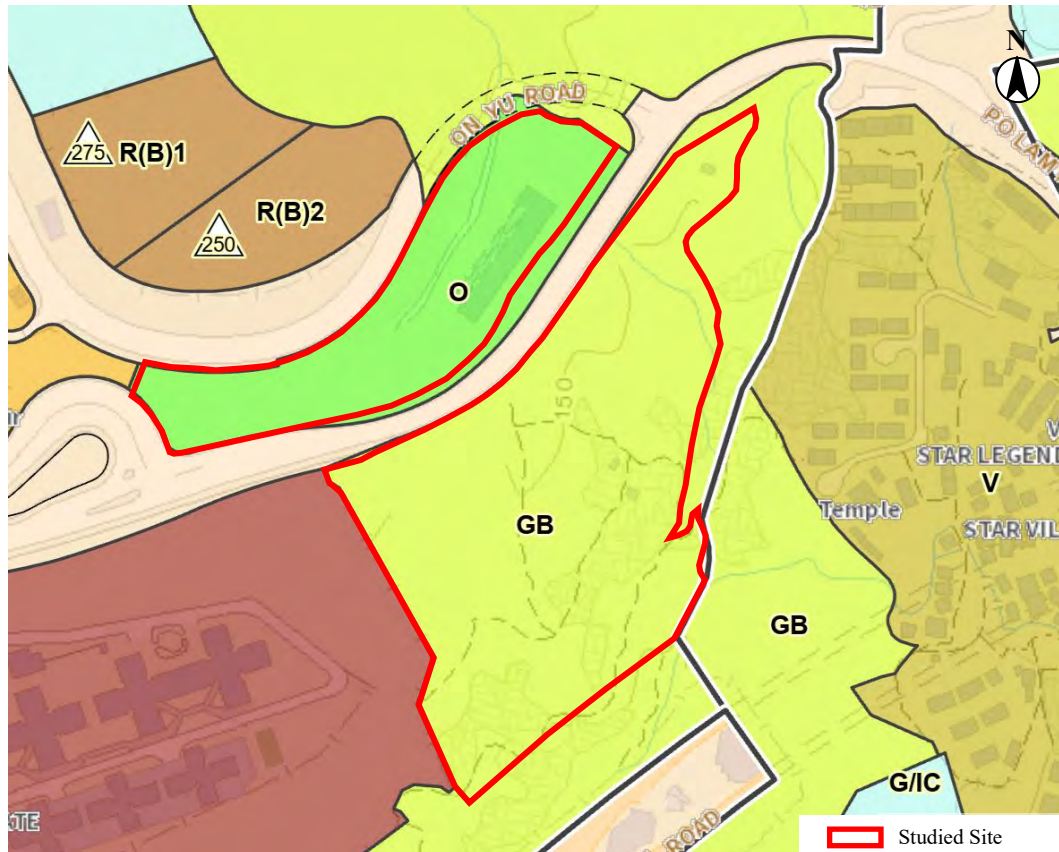


Figure 2.3.1 Baseline Scheme - Statutory Plan of the Studied Site (Source: Town Planning Board)

- 2.3.3 Hence, the Baseline Scheme of the Studied Site is identified as open space on hilly terrain. The directional view for the 3D model of Baseline Scheme is shown in Figure 2.3.2 to Figure 2.3.5.

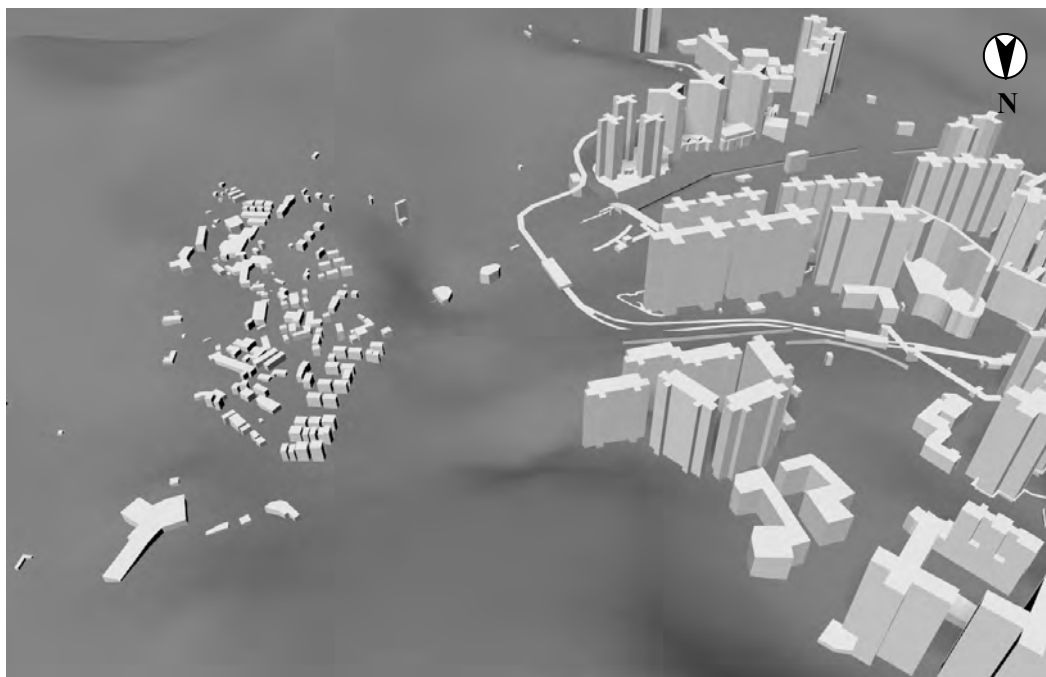


Figure 2.3.2 Northerly View of Baseline Scheme

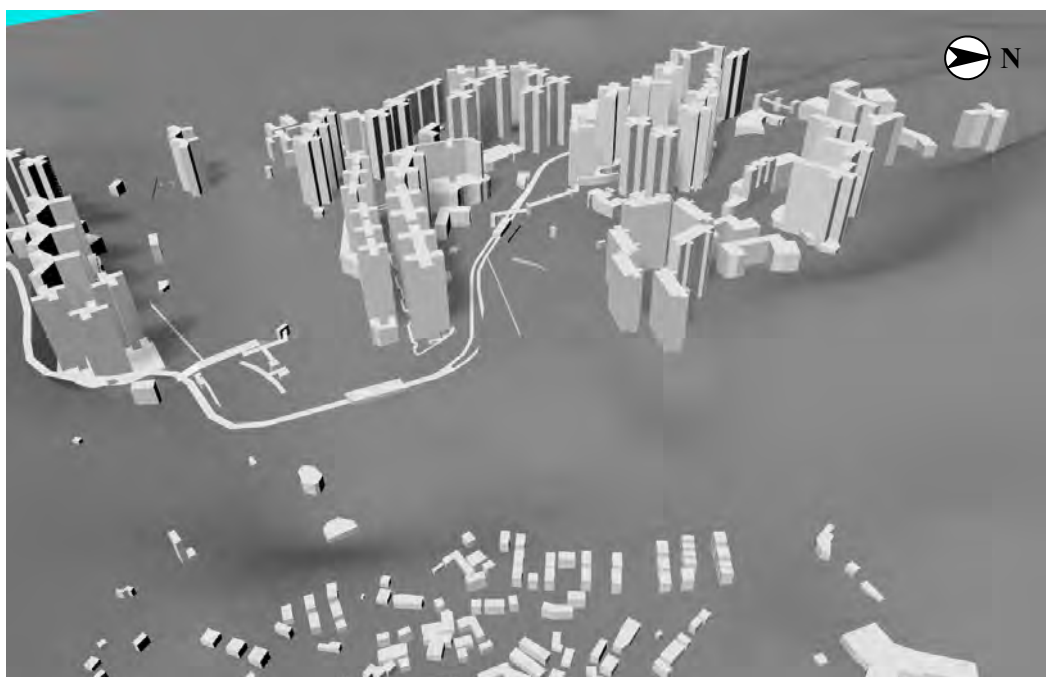


Figure 2.3.3 Easterly View of Baseline Scheme

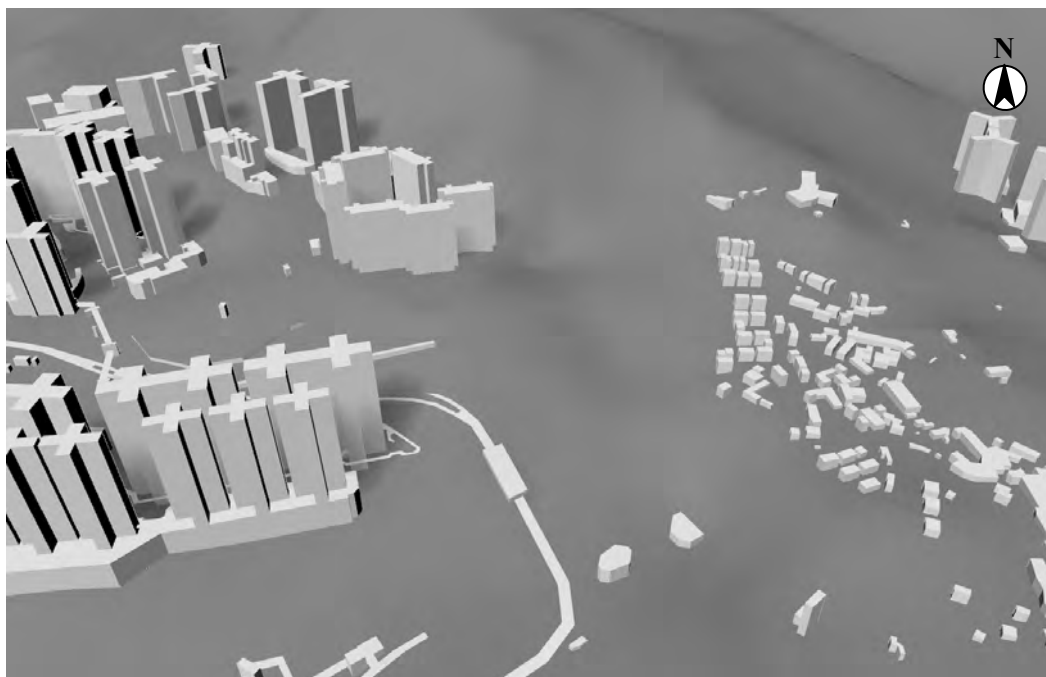


Figure 2.3.4 Southerly View of Baseline Scheme



Figure 2.3.5 Westerly View of Baseline Scheme

B. Indicative Development Scheme

- 2.3.4 In the Indicative Development Scheme, the development is situated atop an elevated depot, as shown in Appendix B.1. The Studied Site is categorized into four distinct zones: Zone A, B, C, and D. The Studied Site comprises 27 towers with building heights ranging from +280.55 to +290mPD. Zones A and B, located in the north of the Studied Site, consists of 16 towers with a height of +290mPD; Zones C and D, situated in the south, consists of 11 towers with a height of +280.55mPD. Quality landscaping and open space are provided at +163mPD to 173mPD at Zone A, and at +157.5 to +163mPD at Zone B, C and D. The Master Layout Plan of the Indicative

Development Scheme is shown in Figure 2.3.6. The Development Parameter is summarized in Table 2.3.1.

Table 2.3.1 Development Parameters of the Indicative Development Scheme

Development Parameters	Proposed Development
Building Blocks	27 nos. of high-rise Towers 2 nos. of Podiums
Maximum Building Height	+280.55mPD to +290mPD for Towers +130mPD to +173mPD for Podiums
Plot Ratio	Domestic: 6.95 Non-domestic: 0.50

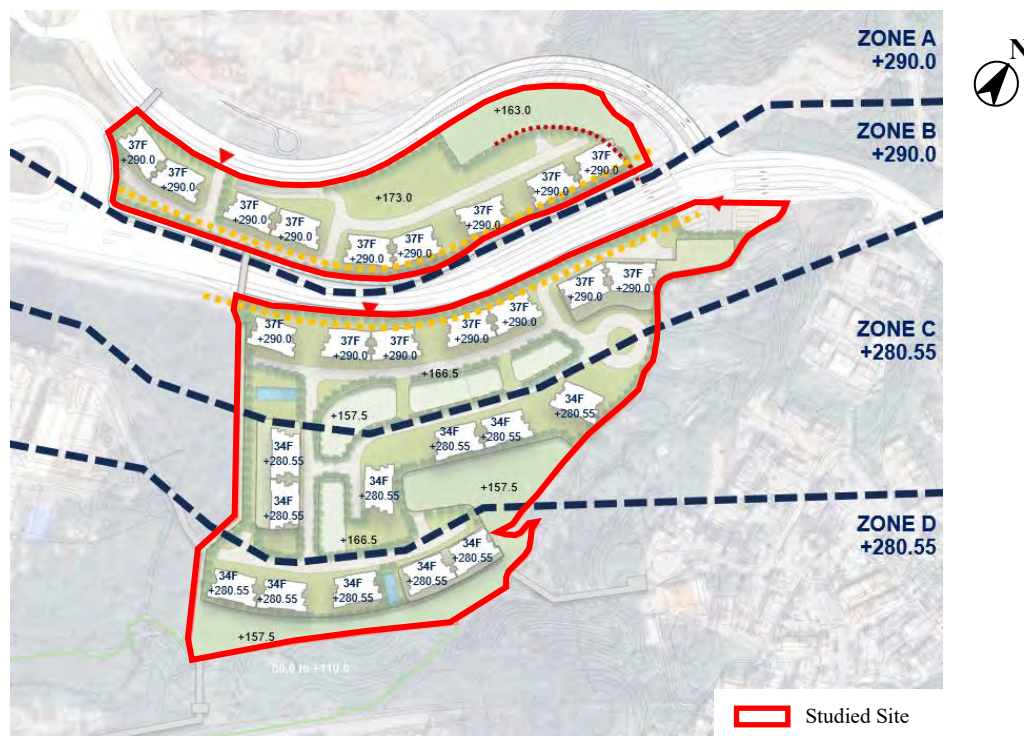


Figure 2.3.6 Indicative Development Scheme – Master Layout Plan

2.3.5

Wind enhancement features have been provided to alleviate the ventilation impact created by the Indicative Development Scheme. These features are listed as below, with reference to

- 1 nos. 30m air path in between Zone B, aligned with NE-SW direction with less than 15-degree turn. (#1)
- 1 nos. 15m air path in between Zone C, aligned with NE-SW direction with less than 15-degree turn. (#2)
- 1 nos. 15m air path across Main Site (Zone B, C, D), aligned with the E-W direction. (#3)
- 1 nos. 15m air path in the Northern Site (Zone A), aligning with the NNE-SSW direction. (#4)

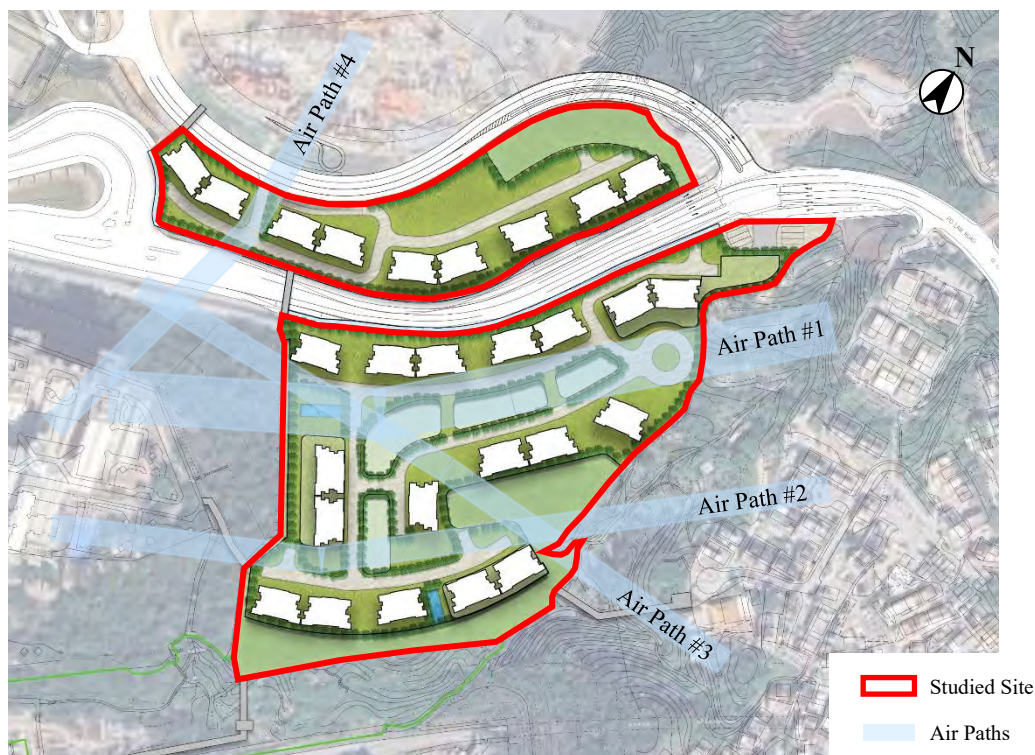


Figure 2.3.7 Indicative Development Scheme – Air Paths Across the Site

2.3.6

The directional view for the 3D model of Indicative Development Scheme is shown in Figure 2.3.8 to Figure 2.3.11.



Figure 2.3.8 Northerly View of Indicative Development Scheme

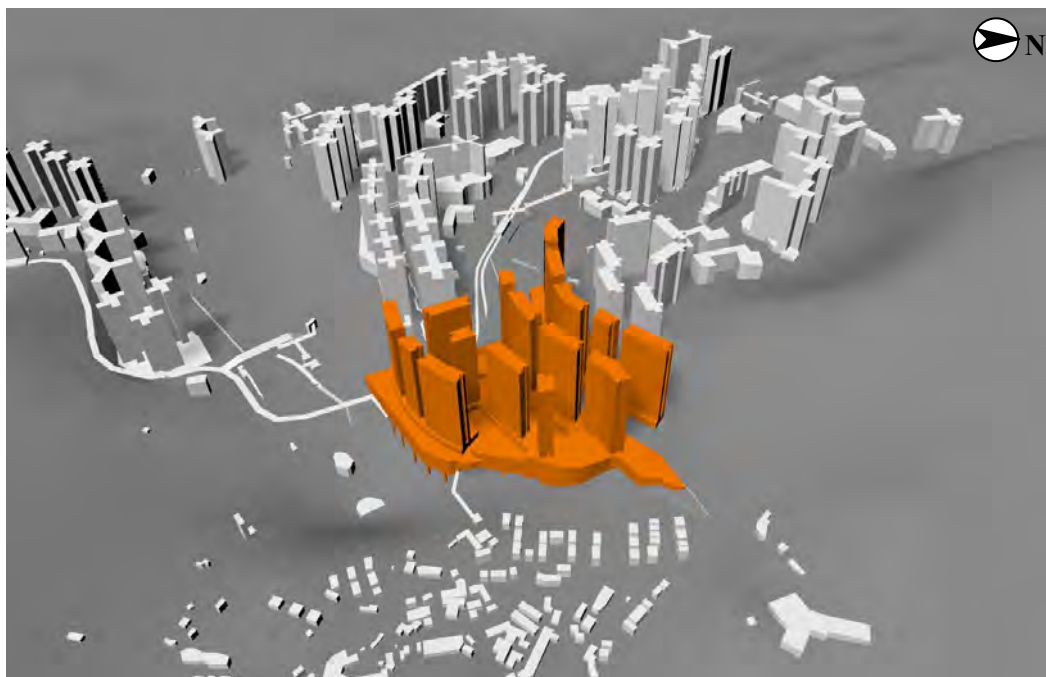


Figure 2.3.9 Easterly View of Indicative Development Scheme

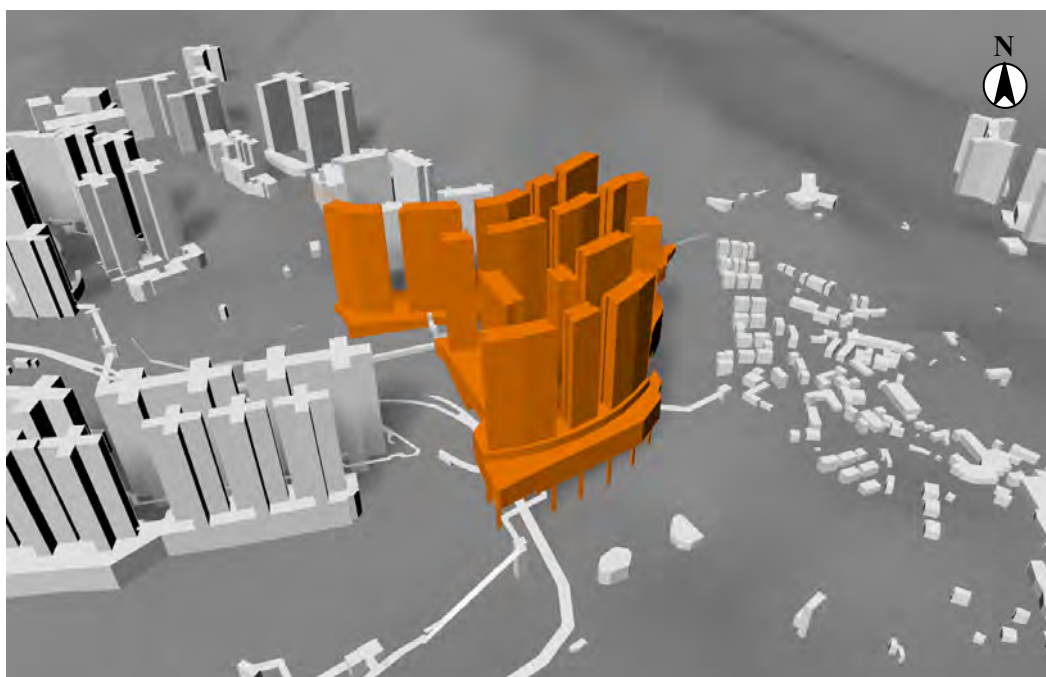


Figure 2.3.10 Southerly View of Indicative Development Scheme

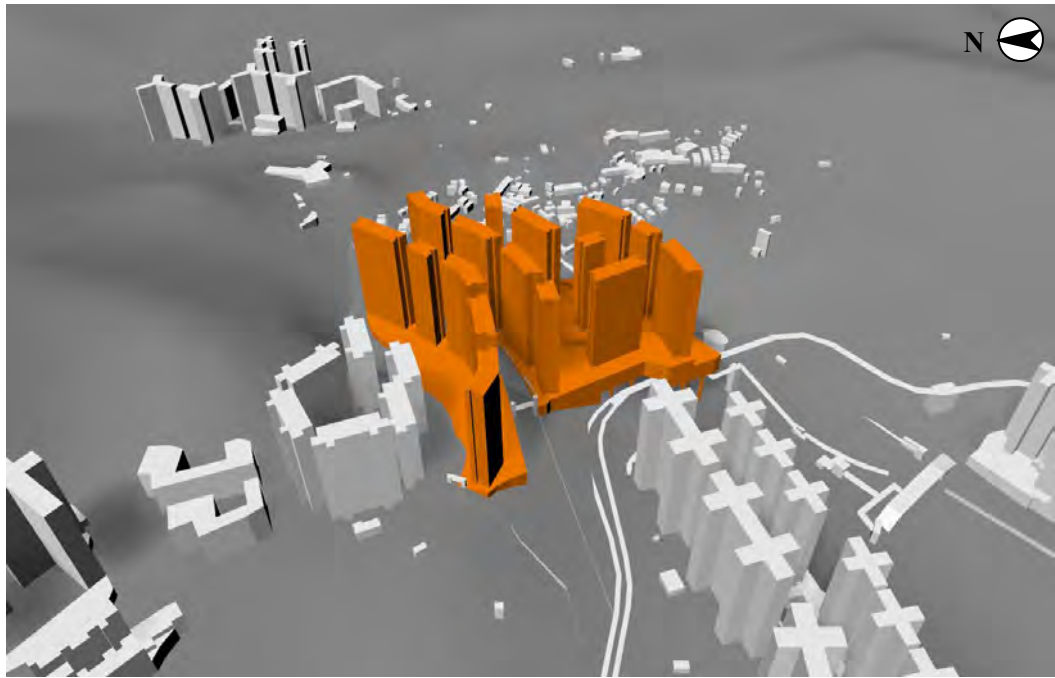


Figure 2.3.11 Westerly View of Indicative Development Scheme

C. Revised Indicative Development Scheme

- 2.3.7 The Indicative Development Scheme is revised to enhance the wind performance in the focus areas to the west of the development. The Master Layout Plan of Revised Indicative Development Scheme is shown in
- 2.3.8 Figure 2.3.12 with details in Appendix B. The development parameter is summarised in Table 2.3.2.

Table 2.3.2 Development Parameters of the Revised Indicative Development Scheme

Development Parameters	Proposed Development
Building Blocks	27 nos. of high-rise Towers 2 nos. of Podiums
Maximum Building Height	+277.4mPD to +290mPD for Towers +130mPD to +185mPD for Podiums
Plot Ratio	Domestic: 7.04 Non-domestic: 0.56

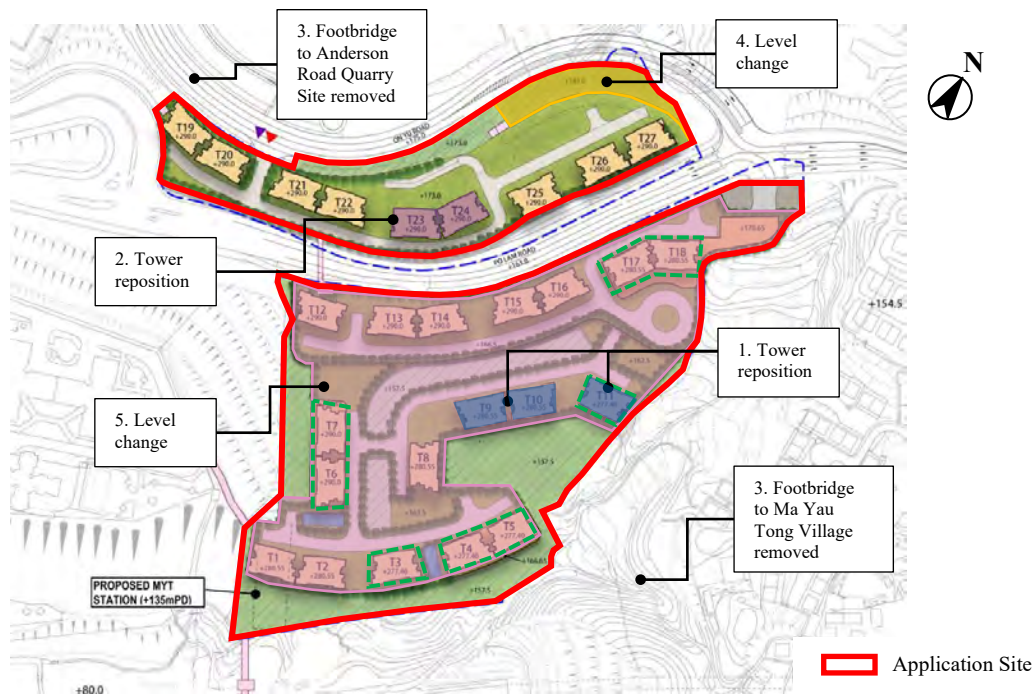


Figure 2.3.12 Revised Indicative Development Scheme – Master Layout Plan

2.3.9 Several changes are identified as compared with Indicative Development Scheme, as listed in the following.

1. Three towers (**blue** shaded in
2. Figure 2.3.12) in Zone C are repositioned.
3. Two towers (**purple** shaded in
4. Figure 2.3.12) in Zone A are repositioned.
5. Two footbridges, (1) from Main Site connecting to Ma Yau Tong Village and (2) from Northern Site connecting to Anderson Road Quarry Development, are removed.
6. Level of landscape portion (**orange** shaded in
7. Figure 2.3.12) in the Northern Site is changed to +185mPD.
8. The Main Site adopts a stepping podium design, the levels of landscape (**pink** shaded in
9. Figure 2.3.12) are changed to +162.5mPD and 168.5mPD.
10. Building height of eight towers are changed (**green** dotted line in
11. Figure 2.3.12)
12. The site boundary has been revised to exclude the unusable land and avoid encroachment onto other lot boundary and creation of “No Man’s Land”.

2.3.10 The wind enhancement features proposed in Indicative Development Scheme (Section 2.3.5 refers) has been maintained under Revised Indicative Development Scheme. In addition, the 3 repositioned towers in Zone C widened Air path #1 for 10m, and the podium level at Airpath #1 is lowered by 4m. Refer to Figure 2.3.13, these features are listed below with changes highlighted in **bold**.

- 1 nos. 40m air path in between Zone B, aligned with NE-SW direction with less than 15-degree turn. (#1)
- 1 nos. 15m air path in between Zone C, aligned with NE-SW direction with less than 15-degree turn. (#2)
- 1 nos. 15m air path across Main Site (Zone B, C, D), aligned with the E-W direction. (#3)
- 1 nos. 15m air path in the Northern Site (Zone A), aligning with the NNE-SSW direction. (#4)

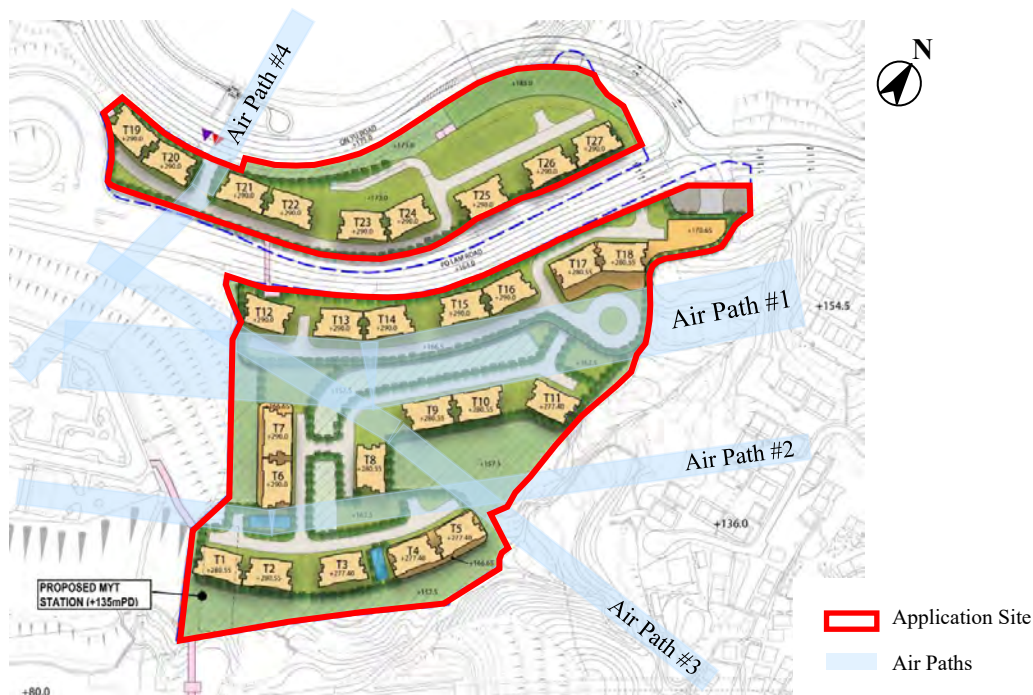


Figure 2.3.13 Revised Indicative Development Scheme – Air Paths Across the Site

3. Methodology

3.1 Wind Availability Data

3.1.1 The site wind availability data for the Application Site and its surrounding is an essential parameter for AVA. As stipulated in the *AVA Technical Circular*, the site wind availability data would be presented by using appropriate mathematical models. Planning Department (PlanD) has set up a set of simulated meso-scale data of Regional Atmospheric Modelling System (RAMS) for the territory for AVA Study, which can be downloaded from Planning Department Website¹.

3.1.2 As indicated in Figure 3.1.1, the location of the Application Site falls within the location grid (x: 094, y:042) in the RAMS database, which is selected as the basis for wind availability data. The annual and summer wind roses at 500m of the selected grid are shown in Figure 3.1.2, with which the prevailing wind directions were identified.

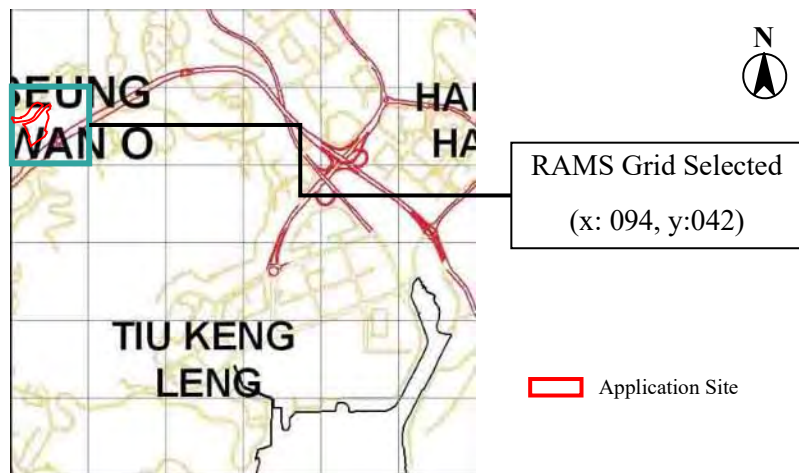


Figure 3.1.1 RAMS Grid and Location of the Application Site

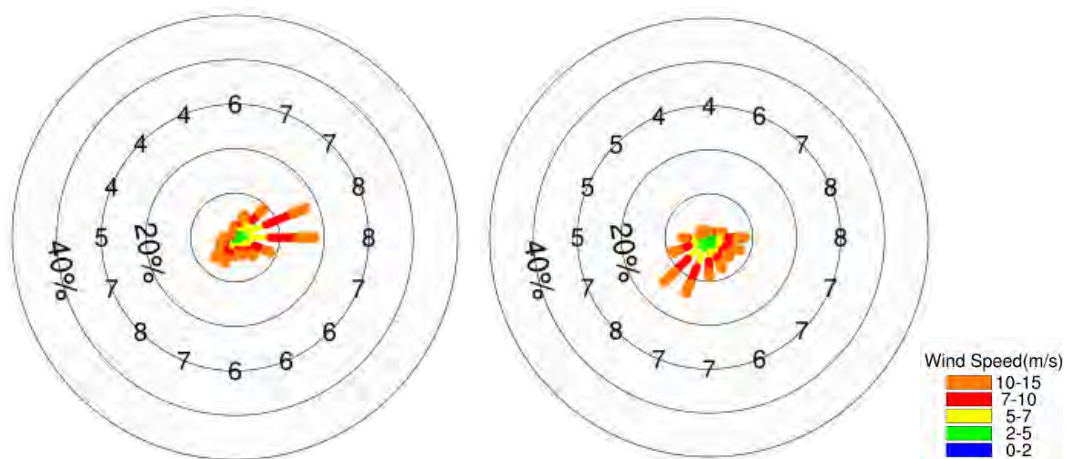


Figure 3.1.2 Wind Roses at 500m – Annual Wind Rose (Left); Summer Wind Rose (Right)

¹ Site Wind Availability System | Planning Department

- 3.1.3 As per the AVA *Technical Circular*, at least 75% of the time in a typical reference year (frequency of occurrence) would be studied under both annual and summer wind conditions.

A. Annual Prevailing Wind Directions

- 3.1.4 According to the selected set of wind data from the RAMS, eight prevailing wind directions were considered in this AVA Study, which covers 78.3% of the total annual wind frequency. They are north-north-easterly (5.6%), north-easterly (9.3%), east-north-easterly (17.5%), easterly (18.2%), east-south-easterly (8.7%), south-easterly (6.0%), south-south-westerly (6.3%), south-westerly (6.7%), as highlighted in green in Table 3.1.1.

Table 3.1.1 Annual Wind Frequency

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	
Frequency	2.7%	5.6%	9.3%	17.5%	18.2%	8.7%	6.0%	4.4%	
Wind Direction	S	SSW	SW	WSW	W	WNW	NW	NNW	Sum
Frequency	4.3%	6.3%	6.7%	3.9%	2.7%	1.2%	1.2%	1.4%	78.3%

B. Summer Prevailing Wind Directions

- 3.1.5 Eight prevailing wind directions were considered in this AVA Study which covers 78.7% of the total summer wind frequency. They are easterly (8.6%), east-south-easterly (7.9%), south-easterly (6.7%), south-south-easterly (7.7%), southerly (9.2%), south-south-westerly (14.1%), south-westerly (15.2%) and west-south-westerly (9.3%).

Table 3.1.2 Summer Wind Frequency

Wind Direction	N	NNE	NE	ENE	E	ESE	SE	SSE	
Frequency	1.3%	1.6%	2.1%	3.7%	8.6%	7.9%	6.7%	7.7%	
Wind Direction	S	SSW	SW	WSW	W	WNW	NW	NNW	Sum
Frequency	9.2%	14.1%	15.2%	9.3%	6.1%	2.2%	2.3%	1.7%	78.7%

C. Wind Profiles

- 3.1.6 The vertical wind profiles from the RAMS data are extracted and inputted into CFD model. The exact profiles are extracted and modelled for each corresponding wind direction to be studied. For wind data above 500m height, the velocity is assumed to be the same as the data at 500m. The vertical wind profile for all win directions to be studied are shown in Figure 3.1.3 to Figure 3.1.5.

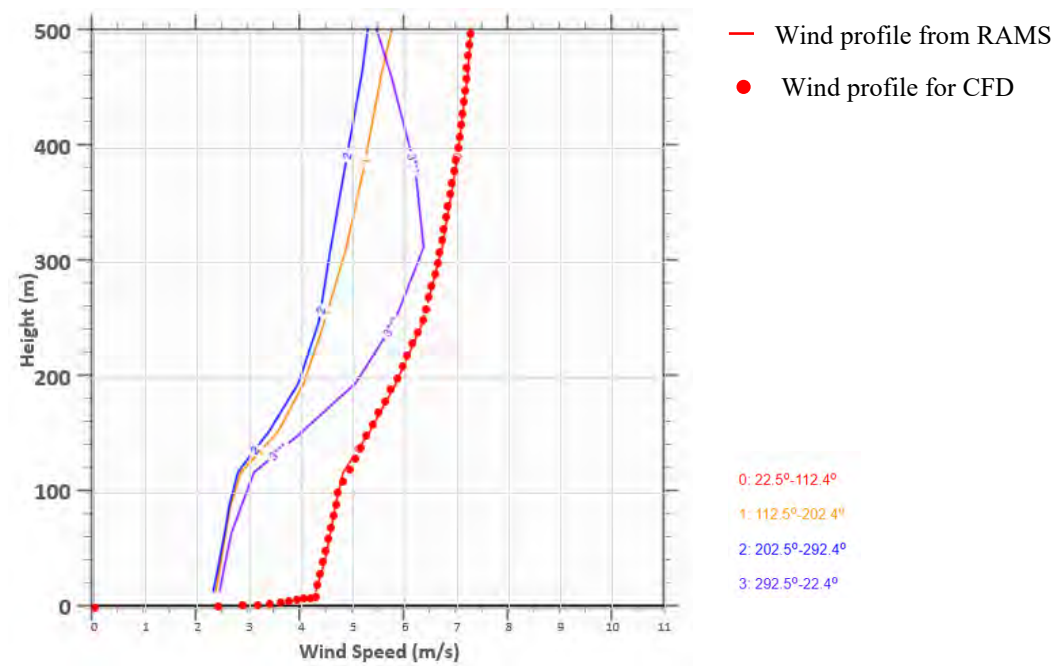


Figure 3.1.3 Vertical Wind Profile of 22.5° – 112.4° Winds

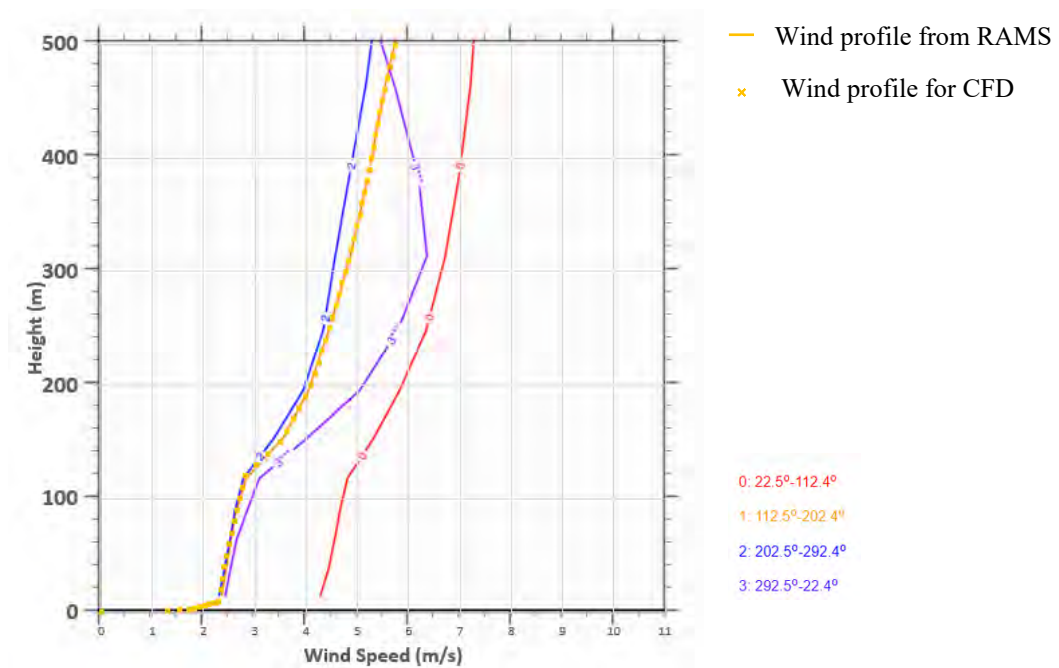


Figure 3.1.4 Vertical Wind Profile of 112.5° – 202.4° Winds

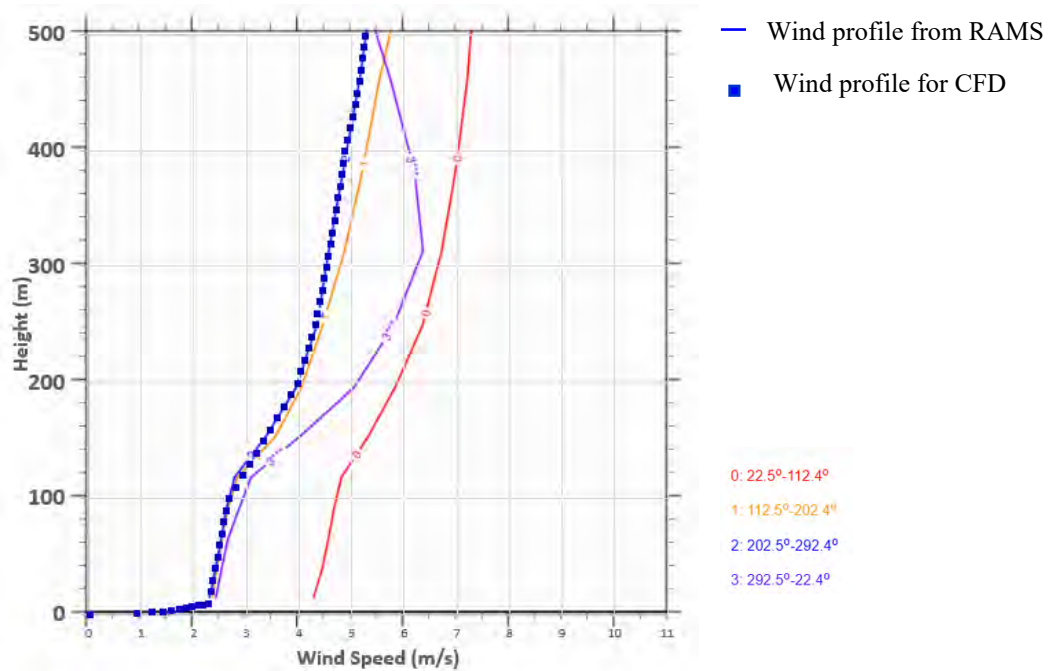


Figure 3.1.5 Vertical Wind Profile of 202.5° – 292.4° Winds

3.2 Assessment and Surrounding Area

- 3.2.1 With reference to *the AVA Technical Circular*, the assessment should include all areas within the Application Site, as well as a belt up to 1H, where H is the height of the tallest building within the Application Site, around the site boundary. H is defined as 200m for the assessment.
- 3.2.2 In order to capture the influence zone of the Application Site, the Assessment Area and Surrounding Area are extended to be 400m (2H) and 800m (4H) away from the site boundary of the Application Site respectively, as indicated in Figure 3.2.1. The computational domain is about 6000m (L) x 5900m (W) x 2800m (H), as shown in Figure 3.2.2.
- 3.2.3 Four directional views of the 3D model of the Surrounding Area are shown in Figure 3.2.3 to Figure 3.2.6.

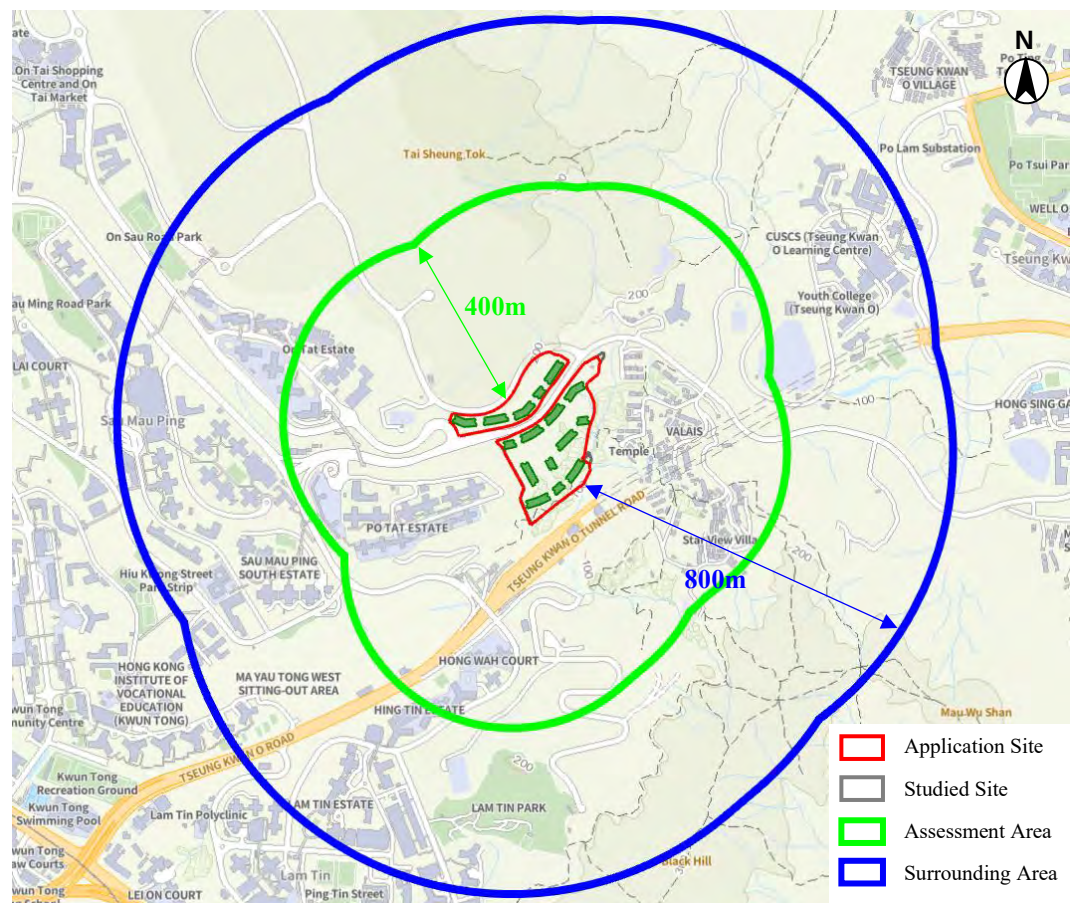


Figure 3.2.1 Application Site (red), Studied Site (grey), Assessment Area (green) and Surrounding Area (blue)

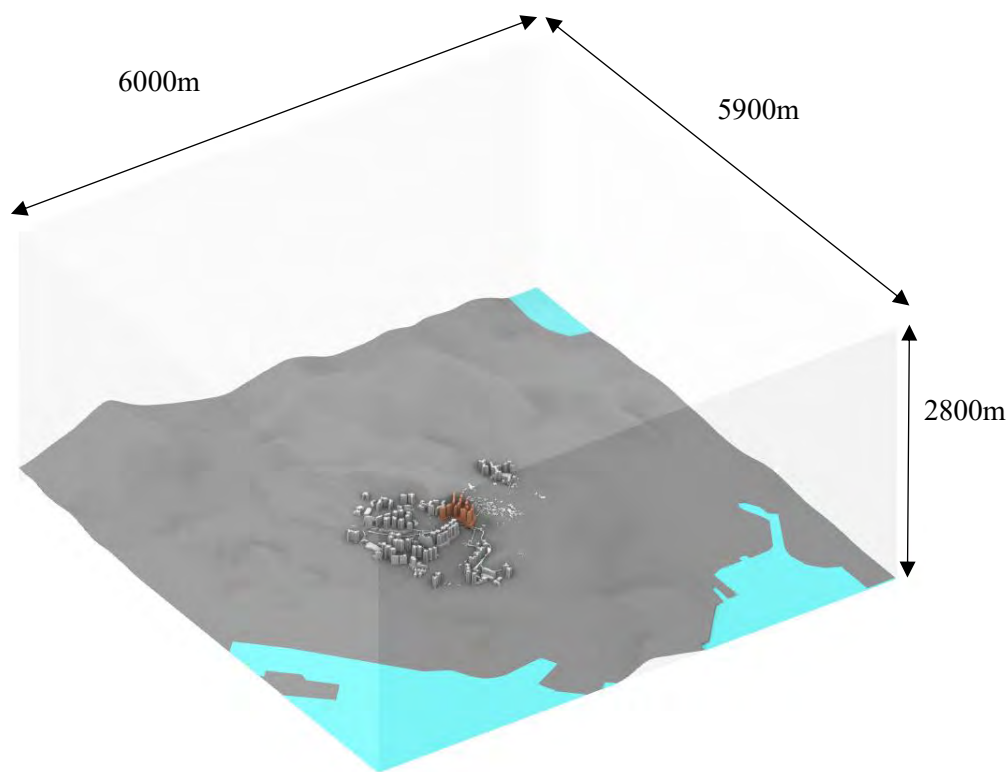


Figure 3.2.2 3D View of the Domain

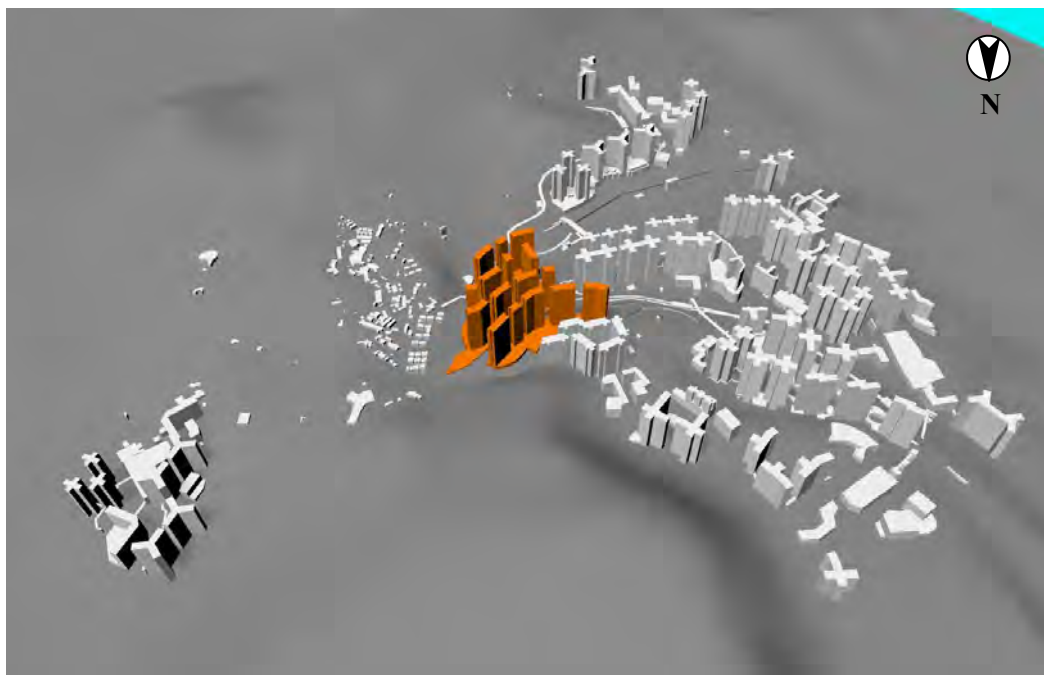


Figure 3.2.3 Northerly View of Surrounding Area



Figure 3.2.4 Easterly View of Surrounding Area

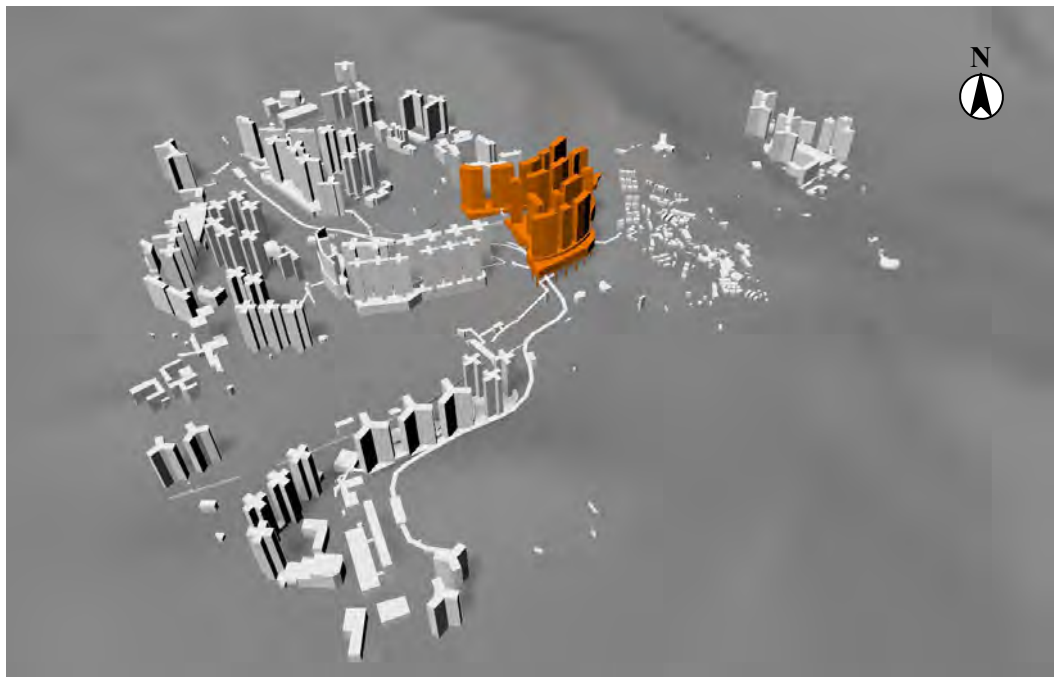


Figure 3.2.5 Southerly View of Surrounding Area

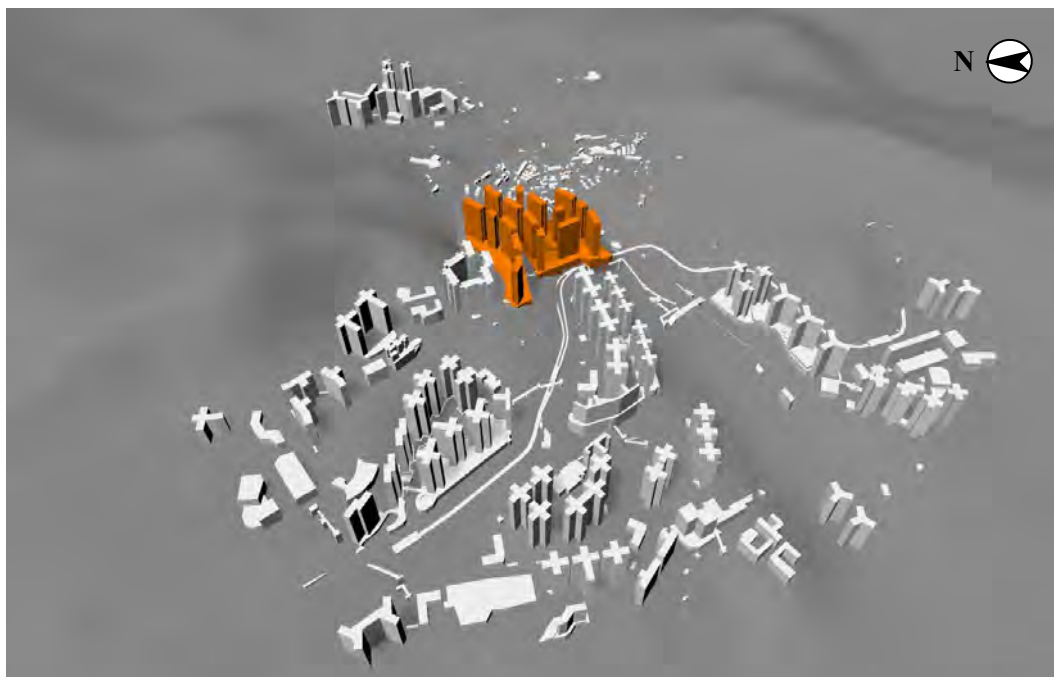


Figure 3.2.6 Westerly View of Surrounding Area

3.3 Technical Details for CFD Simulation

A. Assessment Tool

- 3.3.1 Computational Fluid Dynamics (CFD) technique is adopted for the AVA Initial Study. A well-recognised commercial CFD package ANSYS ICEM-CFD and Ansys-Fluent are used. Both software is widely used in the industry for AVA studies. With the use of three-dimensional CFD method, the local airflow distribution can be visualised in detail. The air velocity distribution within the flow domain, being affected by the site-specific design and the surrounding buildings, is simulated under the prevailing wind condition in a year.

B. Mesh Setup

- 3.3.2 Body-fitted unstructured grid technique is used to fit the geometry to reflect the complexity of the Application Site geometry. Prism layers of 3m above ground (totally 6 layers and each layer is 0.5m) are incorporated in the meshing to better capture the approaching wind as shown in Figure 3.3.1. The expansion ratio is 1.3 while the maximum blockage ratio is 3%.

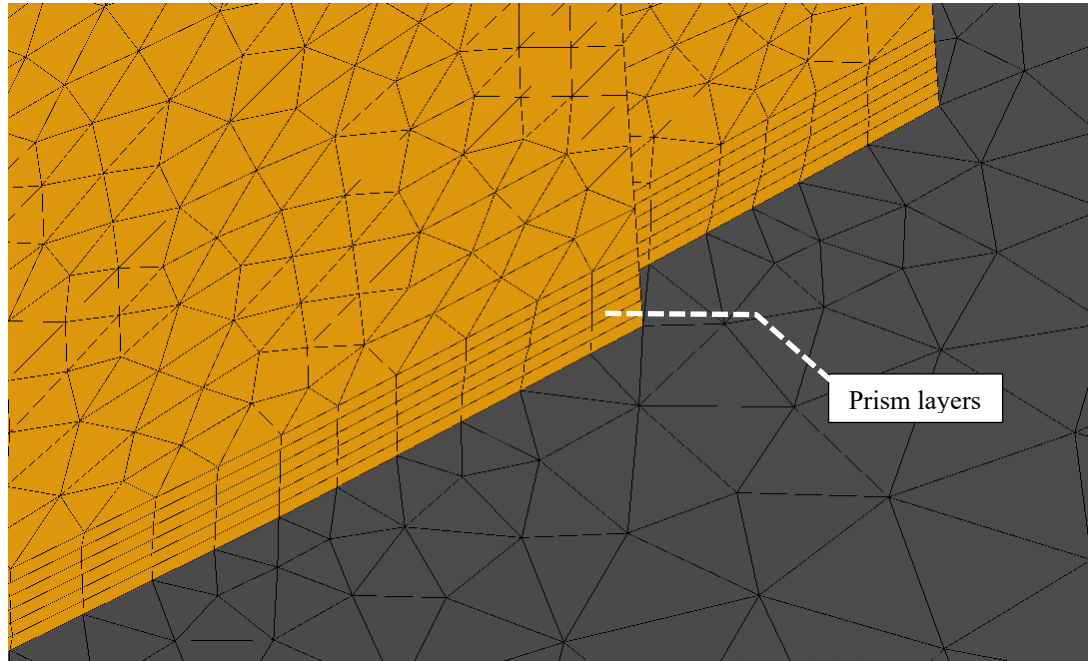


Figure 3.3.1 Prism Layers Near Pedestrian Level

- 3.3.3 Finer grid system is applied to the most concerned area based on preliminary judgement, while coarse grid system is applied to the area of surrounding buildings for better computational performance while maintaining satisfactory result. The mesh for the computational model is shown in Figure 3.3.2.

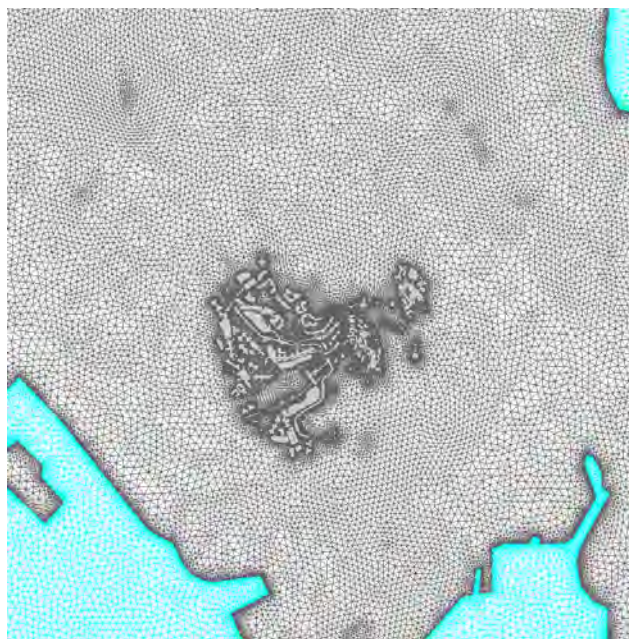


Figure 3.3.2 Mesh of the Computational Model

C. Turbulence Model

- 3.3.4 As highlighted in the recent academic and industrial research literatures by CFD practitioners, the widely used Standard $k - \varepsilon$ turbulence model technique may not adequately model the effects of large-scale turbulences around buildings and ignored the wind gusts leading to the relatively poor prediction in the recirculation regions around buildings. Therefore, in this CFD simulation, realizable $k - \varepsilon$ turbulence modelling method is applied. This technique provides more accurate representation of the levels of turbulence that can be expected in an urban environment.

D. Calculation Method

- 3.3.5 The Segregated Flow model solves the flow equations in a segregated manner. The linkage between the momentum and continuity equations is based on the predictor-corrector approach. A collocated variable arrangement and a Rhie-and-Chow-type pressure-velocity coupling combined with a SIMPLE-type algorithm is adopted. A higher order differencing scheme is applied to discretize the governing equations. The convergence criterion is set to 0.0001 on mass conservation. The calculation repeat until the solution satisfies this convergence criterion.
- 3.3.6 The prevailing wind directions are set to inlet boundaries of the model with wind profile as detailed in Section 3.1. The downwind boundaries are set to pressure with value of atmospheric pressure. The side boundaries are set to symmetry. In addition, to eliminate the boundary effects, the computational domain is built beyond the Surrounding Area as required in *the AVA Technical Circular*.

E. Summary

- 3.3.7 Since there is no internationally recognized guideline or standard on using CFD for outdoor urban scale studies, reference was made to other CFD guidelines on different wind flow aspects to suggest a study approach for current study. The detail parameters are summarized in Table 3.3.1.

Table 3.3.1 Detail Parameters Adopted in the CFD Model

	CFD Model
Model Scale	1:1 to real environment
Model details	Only include Topography, Buildings blocks, Streets/Highways, Noise Barriers No landscape feature is included
Domain	6000m(Length) x 5900m(Width) x 2800m(Height)
Assessment Area	400m from site boundary of Study Area
Surrounding Area	800m from site boundary of Study area
Grid Expansion Ratio	The grid should satisfy the grid resolution requirement with maximum expansion ratio = 1.3
Prismatic layer	6 layers of prismatic layers and 0.5m each (i.e. total 3m above ground)
Inflow boundary Condition	Incoming wind profiles from RAMS
Outflow boundary	Pressure boundary condition with dynamic pressure equal to zero
Wall boundary condition	Logarithmic law boundary

	CFD Model
Solving algorithms	Rhie and Chow SIMPLE for momentum equation Hybrid model for all other equations Realisable k-ε turbulence model
Blockage ratio	< 3%
Convergence criteria	Below 1x10 ⁻⁴

3.4 AVA Indicators

- 3.4.1 The wind Velocity Ratio (VR) as defined in *AVA Technical Circular* was employed to assess the ventilation performances of the proposed Development and surrounding area. The calculation of VR is given by the following formula:

$$VR = \frac{V_p}{V_\infty}$$

where V_p is the wind speed at the pedestrian height (2m above ground) and

V_∞ is the wind velocity at the top of the boundary layer (defined as the height where wind is unaffected by urban roughness and determined by the topographical studies).

- 3.4.2 Higher VR implies that less impact due to Application Site on ventilation performance. The averaged VR is defined as the weighted average VR with respect to the percentage of occurrence of all considered wind directions, which gives a general idea of the ventilation performance at the considered location under both annual and summer wind conditions. Site spatial average velocity ratio (SVR) and a Local spatial average velocity ratio (LVR) are determined as shown in Table 3.4.1.

Table 3.4.1 Terminology of the AVA Initial Study

Terminology	Description
Velocity Ratio (VR)	The velocity ratio (VR) represents the ratio of the air velocity at the measurement position to the value at the reference points.
Site spatial average velocity ratio (SVR)	The SVR represent the average VR of all perimeter test points at the site boundary which identified in the report.
Local spatial average velocity ratio (LVR)	The LVR represent the average VR of all points, i.e. perimeter and overall test points at the site boundary which identified in the report.

3.5 Locations of Test Points

- 3.5.1 As per the technical circular, three types of test point – perimeter test point, overall test points and special test points were adopted to assess the wind performance. The allocation of these test points will be distributed evenly as per the requirement stated in the *AVA Technical Circular*.

A. Perimeter Test Points

- 3.5.2 A total number of 64 perimeter test points (**Green** spots), namely P points, are positioned at intervals of around 30m along the project site boundary at 2m above

street level in accordance with the *AVA Technical Circular*. The locations of perimeter test points are shown in Figure 3.5.1.

B. Overall Test Points

A total number of 355 overall test points (**Blue** spots), namely O points, are evenly distributed in open areas at 2m above street level within the Assessment Area, such as the streets and places where pedestrian frequently access, and their locations are shown in Figure 3.5.1.

C. Special Test Points

- 3.5.3 A total number of 40 special test points (**Pink** spots), namely S points, are evenly distributed in open areas at 2m above street level within the Application Site. Special attentions are paid to the proposed air path and pedestrian walkway. The locations of special test points are shown in Figure 3.5.2.

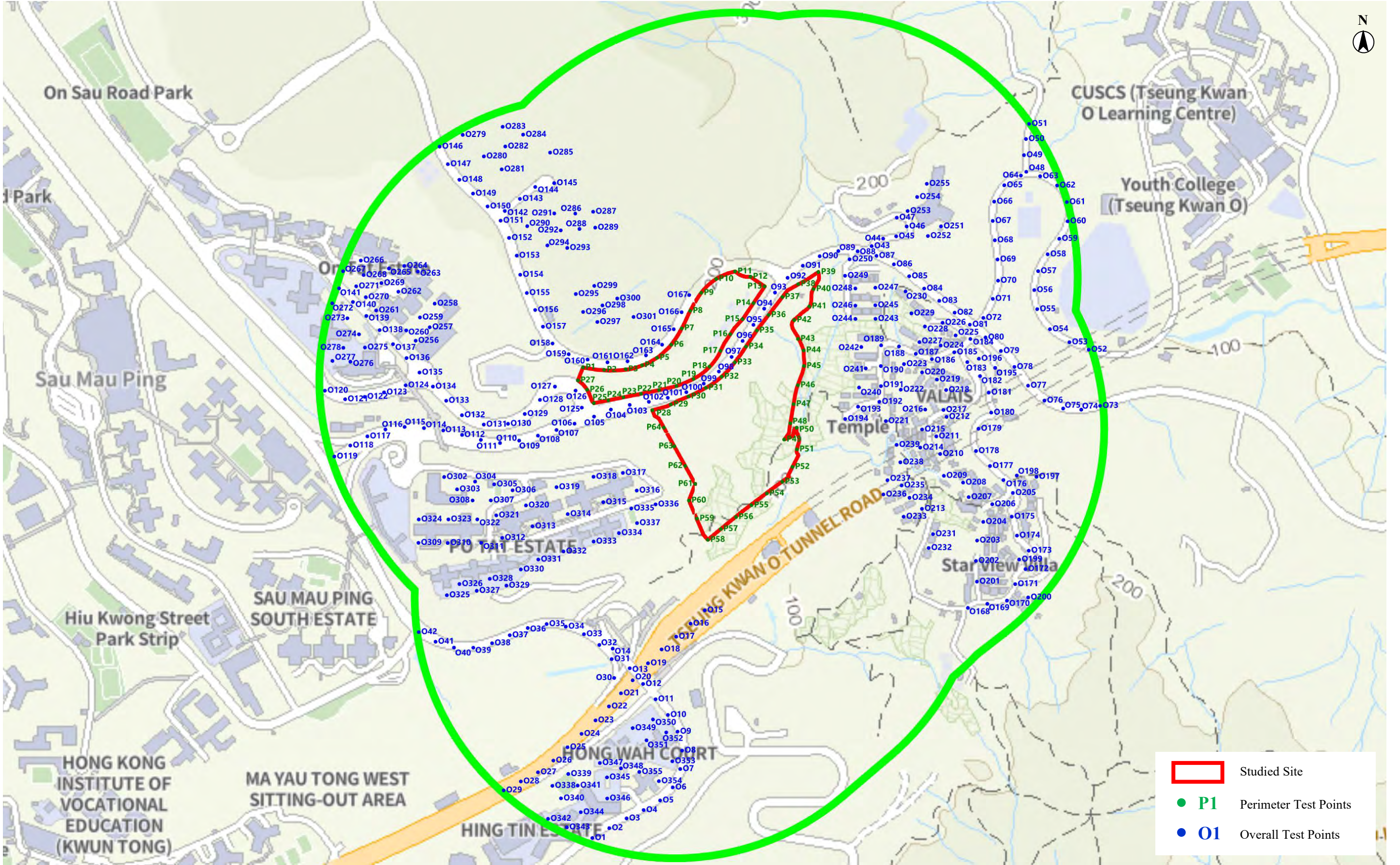


Figure 3.5.1 Locations of Perimeter and Overall Test Points

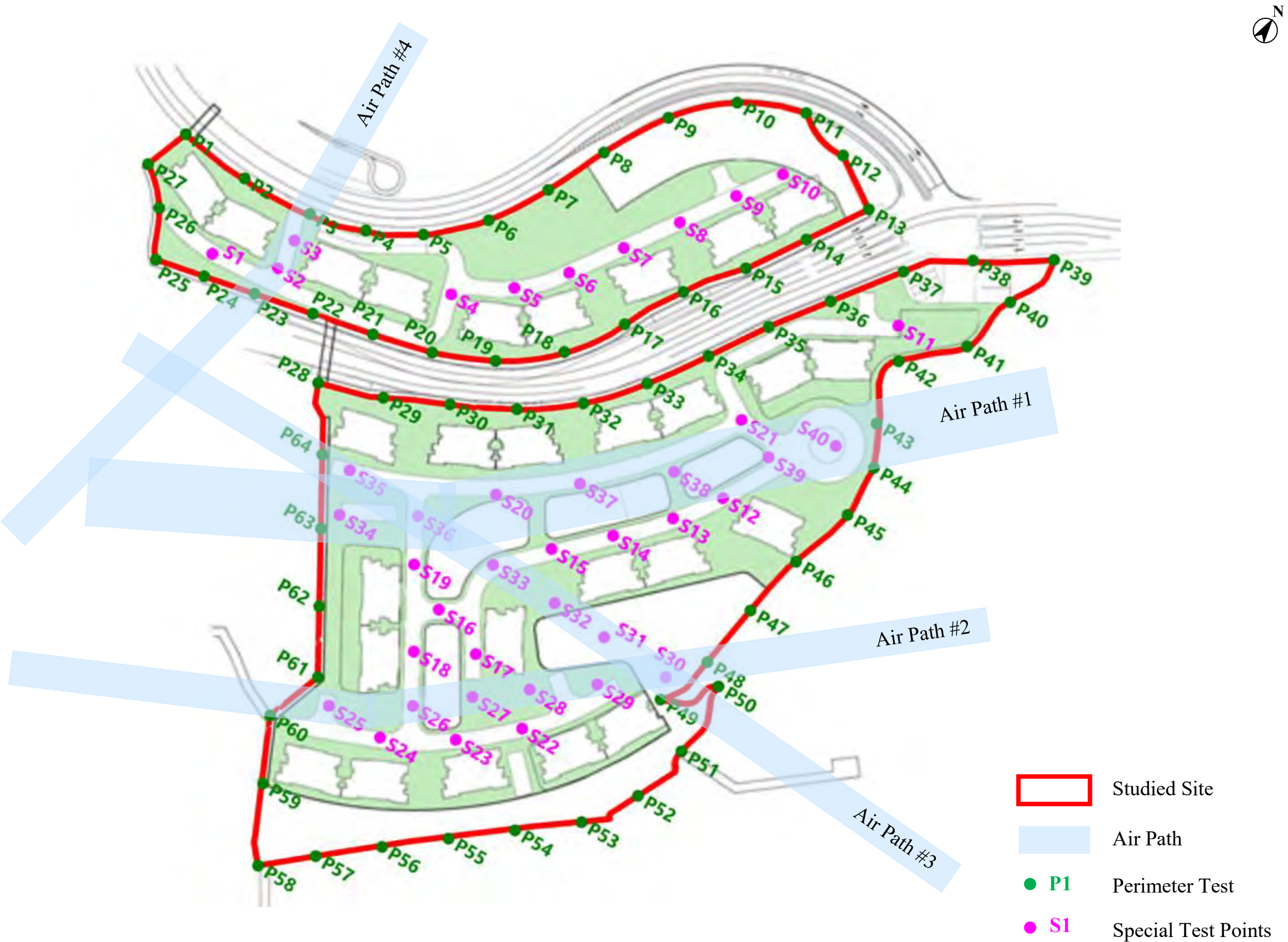


Figure 3.5.2 Locations of Special Test Points

4. Results and Discussions

4.1 Overall Pattern of Ventilation Performance under Annual Wind Condition

- 4.1.1 The SVR and LVR are summarized in Table 4.1.1. The contour plots for Baseline Scheme and Indicative Development Scheme under annual condition is shown in Figure 4.1.1 and Figure 4.1.2, respectively.
- 4.1.2 Indicative Development Scheme achieved a higher SVR and lower LVR as compared with Baseline Scheme. The result indicated that Indicative Development Scheme would achieve a better ventilation performance along the Site Boundary while a relatively calmer wind environment in the surrounding area, as compared with Baseline Scheme.

Table 4.1.1 Annual SVR and LVR for Baseline and Indicative Development Schemes

	Baseline Scheme	Indicative Development Scheme
SVR	0.31	0.34
LVR	0.28	0.25

- 4.1.3 Under annual condition, majority of the incoming comes from NE and SE quadrants. Under NE and SE quadrants prevailing winds, the incoming wind would be able to reach the site freely.
- 4.1.4 For NE quadrant wind, under Indicative Development Scheme, the incoming wind would be diverted by the podium (The Northern Site) and depot structure (Main Site) to travel along On Yu Road, Po Lam Road and the western part of Ma Yau Tong Village, where higher VR would be observed. Nevertheless, high-rise towers would impose some wind shadow area in the leeward site at further distance, such as Tseung Kwan O Road and Po Tat Estate.
- 4.1.5 In addition, the air paths provided within the Application Site aligned with NE-SW, NNE-SSW and E-W direction, which would facilitate wind penetration across the site, and help to alleviate the wind shadow at eastern part of Po Tat Estate slightly.
- 4.1.6 Under Revised Indicative Development Scheme, the widened air paths (Air Path #1) aligned with NE-SW direction would further facilitate wind penetration across the site, and help to alleviate the wind shadow at eastern part of Po Tat Estate and Sau Mau Ping Catholic Primary School as compared with Indicative Development Scheme.
- 4.1.7 Under SE quadrants wind, the Application Site and surrounding areas are located at the leeward side of Black Hill. Incoming wind would skim over the low-rise Ma Yau Tong Village at windward side and reach the Application Site freely.
- 4.1.8 Under Indicative Development Scheme, the high-rise topside development would induce downwash effect near and within the Application Site. In addition, the air paths enhance the permeability within the Application, relatively higher VR would

be observed at podium level and along the southern façade, where the downwash was induced.

- 4.1.9 Nevertheless, the strong downwash effect from the Application Site would limit the incoming wind to travel further towards the leeward side. Hence, wind shadow and relatively calm wind environment would be observed at Po Tat Estate, On Tat Estate and Anderson Road Quarry Site.
- 4.1.10 Under Revised Indicative Development Scheme, without significant change in air paths aligning with incoming wind directions, similar wind environment would be achieved, as compared with Indicative Development Scheme.
- 4.1.11 It is noted that the Indicative Development Scheme would create the potential wind wakes on the areas where much beyond the 2H Assessment Area according to the simulation results. Nevertheless, the mostly affected and dominant areas, which is closer to the Application Site, have already been assessed under this report. Hence, the overall ventilation performance along the site boundary and in the surrounding area (i.e. SVR and LVR) are fairly assessed and the conclusion from the AVA study remained valid.

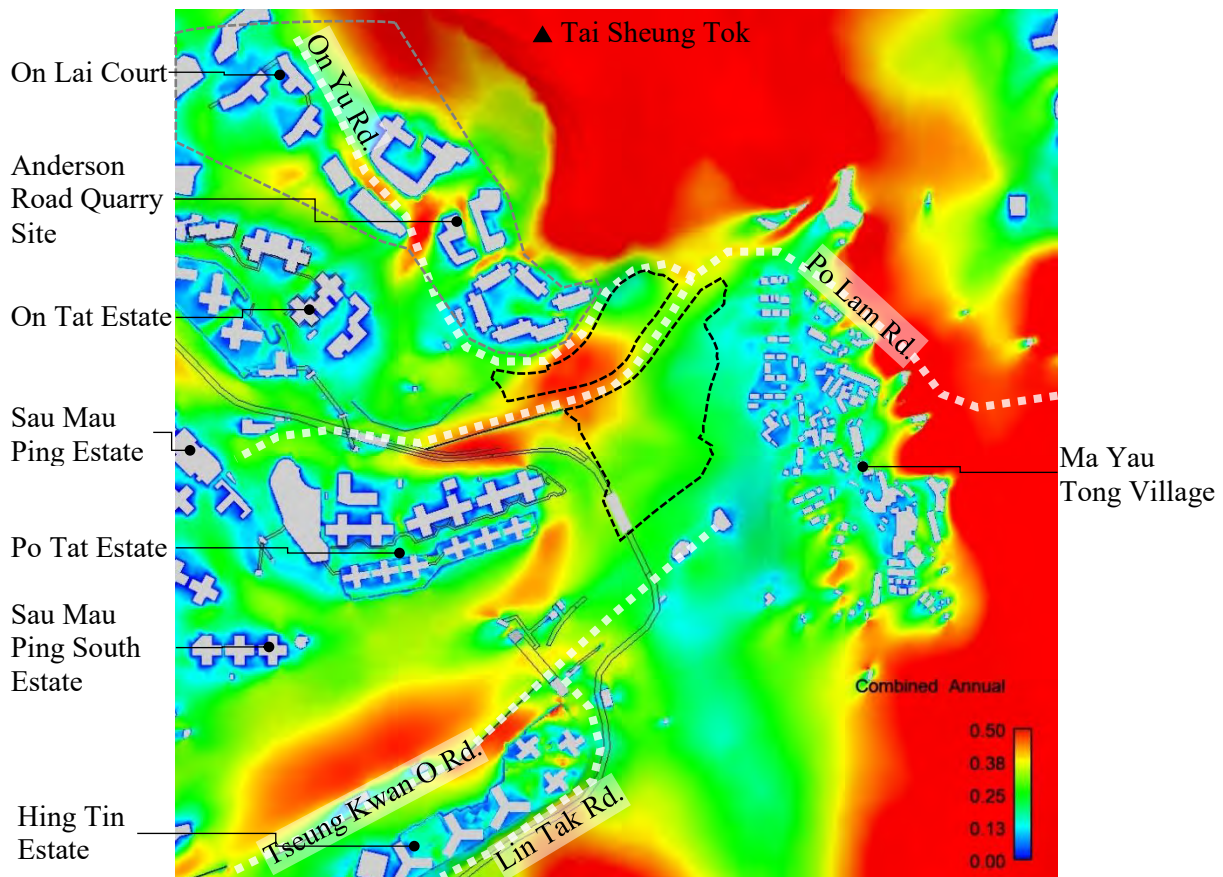


Figure 4.1.1 Annual Weighted Contour Plots under Baseline Scheme

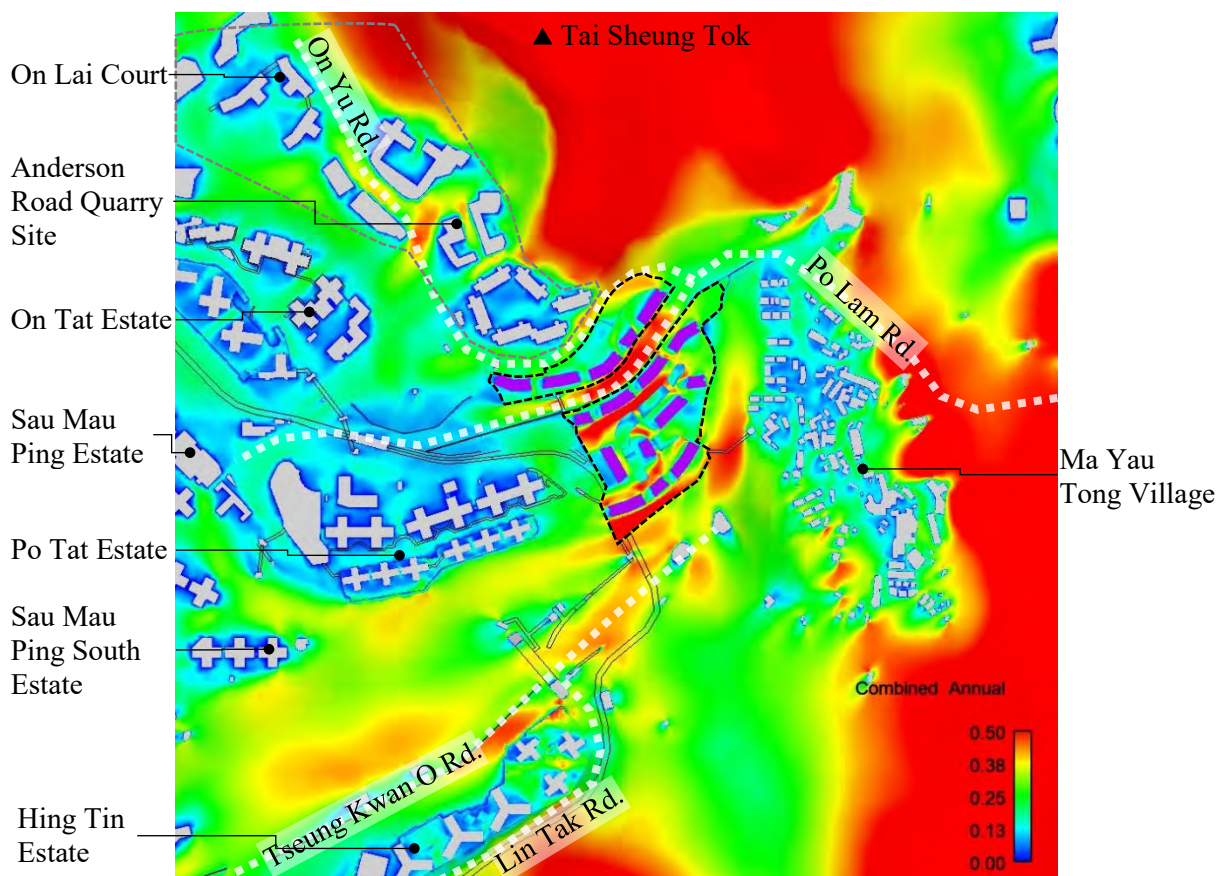


Figure 4.1.2 Annual Weighted Contour Plots under Indicative Development Scheme

4.2 Overall Pattern of Ventilation Performance under Summer Wind Condition

4.2.1 The SVR and LVR are summarized in Table 4.1.1. The contour plots for Baseline Scheme and Indicative Development Scheme under annual condition is shown in Figure 4.2.1 and Figure 4.2.2, respectively.

4.2.2 Indicative Development Scheme achieved a similar SVR and lower LVR as compared with Baseline Scheme. The result indicated that Indicative Development Scheme would achieve a similar ventilation performance along the Site Boundary while a relatively calmer wind environment in the surrounding area, as compared with Baseline Scheme.

Table 4.2.1 Summer SVR and LVR for Baseline and Indicative Development Schemes

	Baseline Scheme	Indicative Development Scheme
SVR	0.26	0.25
LVR	0.22	0.19

4.2.3 Under summer condition, majority of the incoming comes from SE and SW quadrants.

4.2.4 Under SE quadrants, the incoming wind would be able to reach the site from Black Hill freely. Due to the downwash effect from the Indicative Development Scheme, wind environment near the southern and southeastern boundary would be enhanced under SE quadrants wind. On the other hand, wind shadow and relatively calm wind environment would be observed at Po Tat Estate, On Tat Estate and Anderson Road Quarry Site due to the high-rise nature of the towers.

4.2.5 Within the Application Site, the air paths and building separation increased the site permeability and enhance the wind environment in surrounding area.

4.2.6 Under Revised Indicative Development Scheme, without significant change in air paths aligning with incoming wind direction, similar wind environment would be achieved, as compared with Indicative Development Scheme.

4.2.7 Under SW quadrants wind, Tseung Kwan O Road with the adjacent “GB” Zone would act as the main wind entrance for SSW to reach the Application Site. The built-up high-rise Po Tat Estate would shield the incoming wind for Application Site.

4.2.8 The air paths aligned with NE-SW direction would facilitate the downwashed wind to penetrate across the Application Site.

4.2.9 Nevertheless, the high-rise towers of the Application Site would shield the incoming wind for the leeward side. Wind shadow area would be observed at Ma Yau Tong Village, Haven of Hope Sunnyside School, R2-9/R2-10 to the immediate north of the Application Site and the northern part of Anderson Road Quarry Site.

4.2.10 Under Revised Indicative Development Scheme, the widened air path (Air Path #1) and lowered level of podium at Airpath #1 aligned with NE-SW direction would further facilitate wind penetration across the site and help to alleviate the wind

shadow slightly. The wind environment at Ma Yau Tong Village and Haven of Hope Sunnyside School is expected to be enhanced slightly.

- 4.2.11 It is noted that the Indicative Development Scheme would create the potential wind wakes on the areas where much beyond the 2H Assessment Area according to the simulation results. Nevertheless, the mostly affected and dominant areas, which is closer to the Application Site, have already been assessed under this report. Hence, the overall ventilation performance along the site boundary and in the surrounding area (i.e. SVR and LVR) are fairly assessed and the conclusion from the AVA study remained valid.

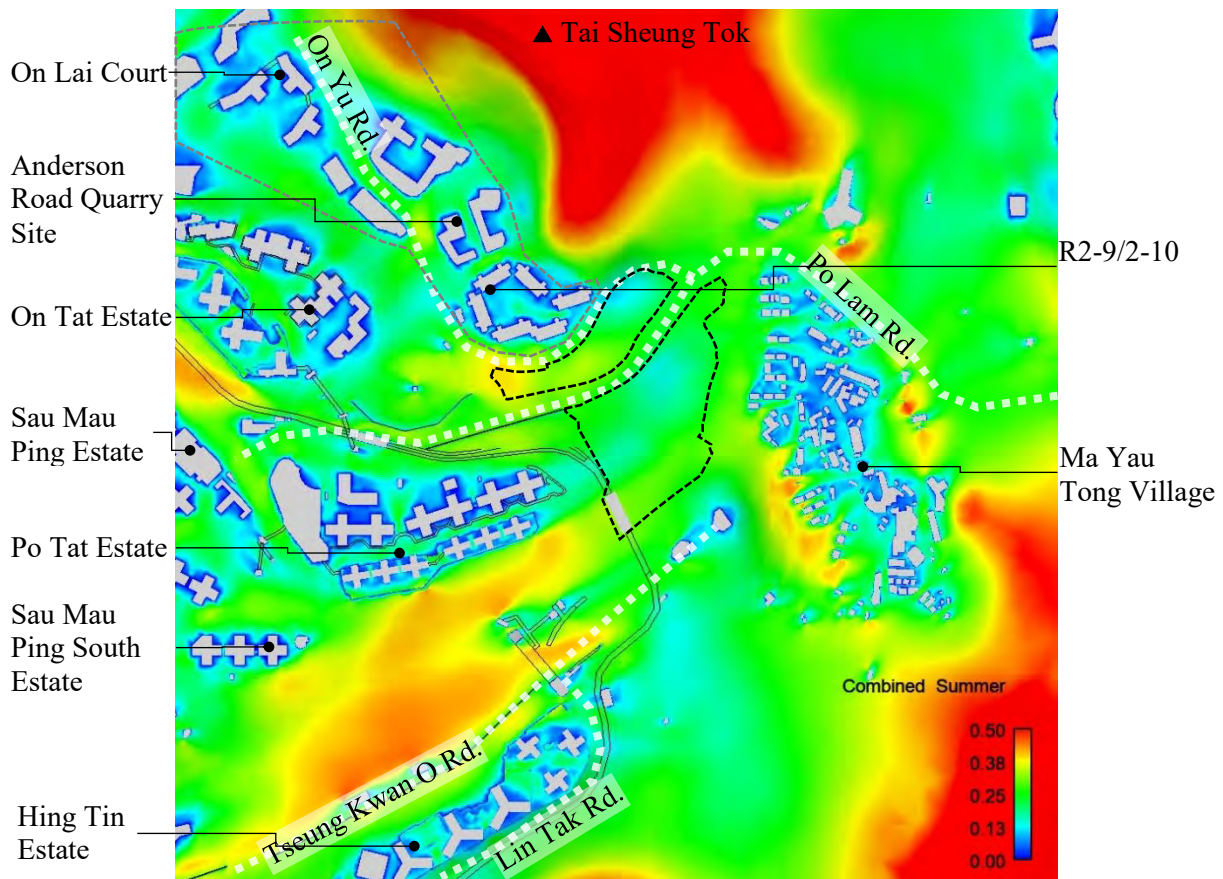


Figure 4.2.1 Summer Weighted Contour Plots under Baseline Scheme

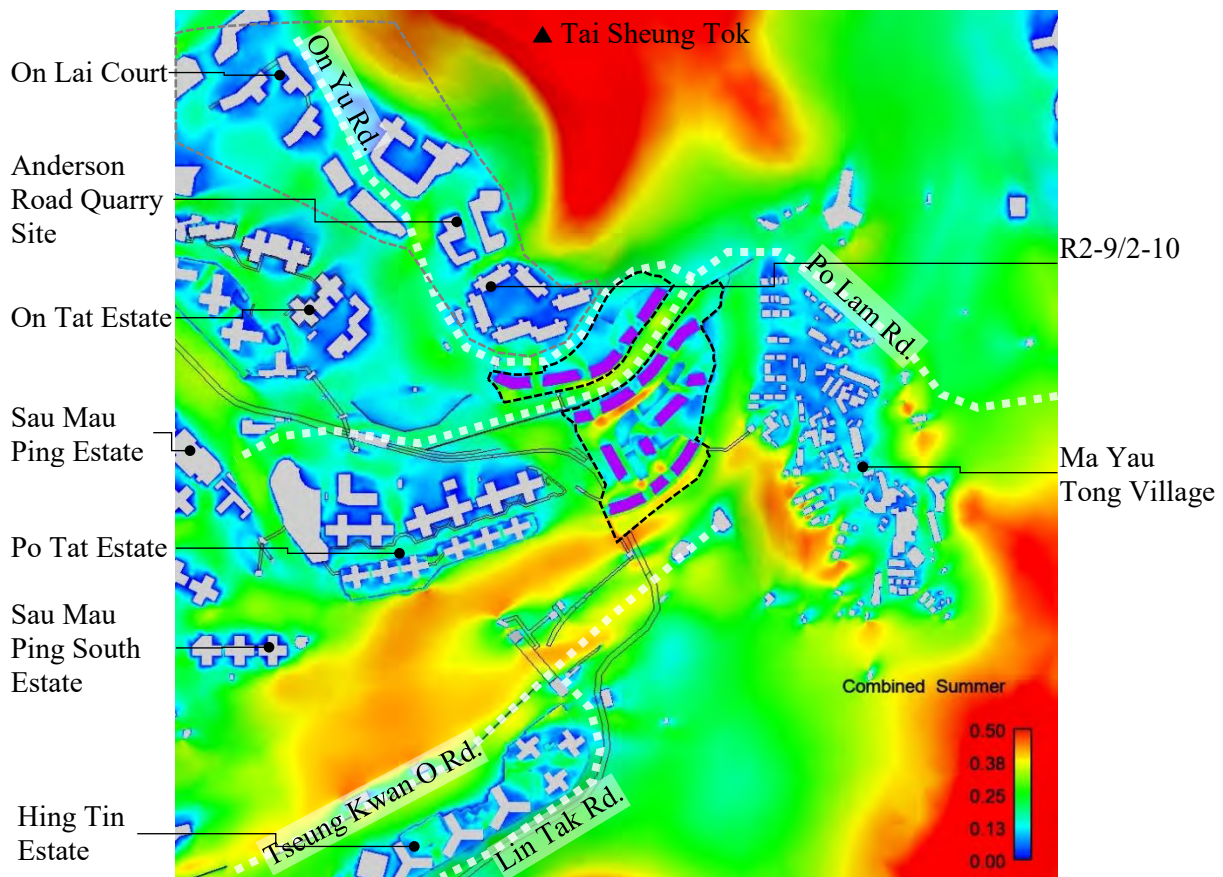


Figure 4.2.2 Summer Weighted Contour Plots under Indicative Development Scheme

4.3 Directional Analysis

A. NNE Wind

- 4.3.1 The occurrence of NNE wind is 5.6% under annual condition. The wind performance of Baseline and Indicative Development Schemes under NNE wind are presented in Figure 4.3.1 and Figure 4.3.2 respectively.
- 4.3.2 The hilly terrain in Tai Sheung Tok, located at the upwind location of the Application Site, would create a relatively calm wind environment in the leeward side of it, including Anderson Road Quarry Site, Po Tat Estate, Sau Mau Ping Estate. Nevertheless, some high-level wind would be captured by high-rise development, such as On Lai Court and On Tat Estate, and ventilate the open space (“O” and “OU” Zone) nearby.
- 4.3.3 The Tai Sheung Tok would also divert the NNE wind to travel down the relatively gentle slope to reach the Application Site, as indicated with black arrows in Figure 4.3.1 and Figure 4.3.2. The incoming wind would reach the Application Site freely.
- 4.3.4 Under Baseline Scheme, with the openness in the Application Site, the incoming wind would skim over and reach the leeward side and continue to travel along Tseung Kwan O Road and adjacent open space in “GB” Zone, as indicated with white arrows in Figure 4.3.1.
- 4.3.5 Under Indicative Development Scheme, the incoming wind would be diverted by the podium (The Northern Site) and depot structure (Main Site) to travel along On Yu Road, Po Lam Road and the western part of Ma Yau Tong Village, where higher VR would be observed, as indicated by white arrows in Figure 4.3.2. The building separation in the Northern Site, such as Air Path #3, would facilitate high-level wind penetration across the site and reach Po Lam Road.
- 4.3.6 Instead of travelling along Tseung Kwan O Road in Baseline Scheme, the stream of air diverted by Main Site, would continue to penetrate southwards across the open space (“O” and “GB” Zone) between Ma Yau Tong Village and Lam Tin Area, indicated as blue arrow in Figure 4.3.2. The wind environment at Lin Tak Road and Lam Tin Park (further to the south) would be enhanced.
- 4.3.7 On the other hand, together with the high-rise development in On Tat Estate, accumulated wind shadow would be casted further at the leeward side at Tseung Kwan O Road with adjacent “GB” Zone and Hing Tin Estate.
- 4.3.8 In addition, the Ma Yau Tong Village located to the west of the Application Site is at windward side where the wind availability would be sufficient. There would be insignificant ventilation impact on Ma Yau Tong Village from Application Site.
- 4.3.9 Under Revised Indicative Development Scheme, the incoming wind would be diverted by the podium (The Northern Site) to travel along On Yu Road. Since a portion of podium level is raised as compared with the Indicative Development Scheme, more downwash wind is brought towards On Yu Road adjacent to the prominent podium. Therefore, the wind environment at On Yu Road would be slightly enhanced.

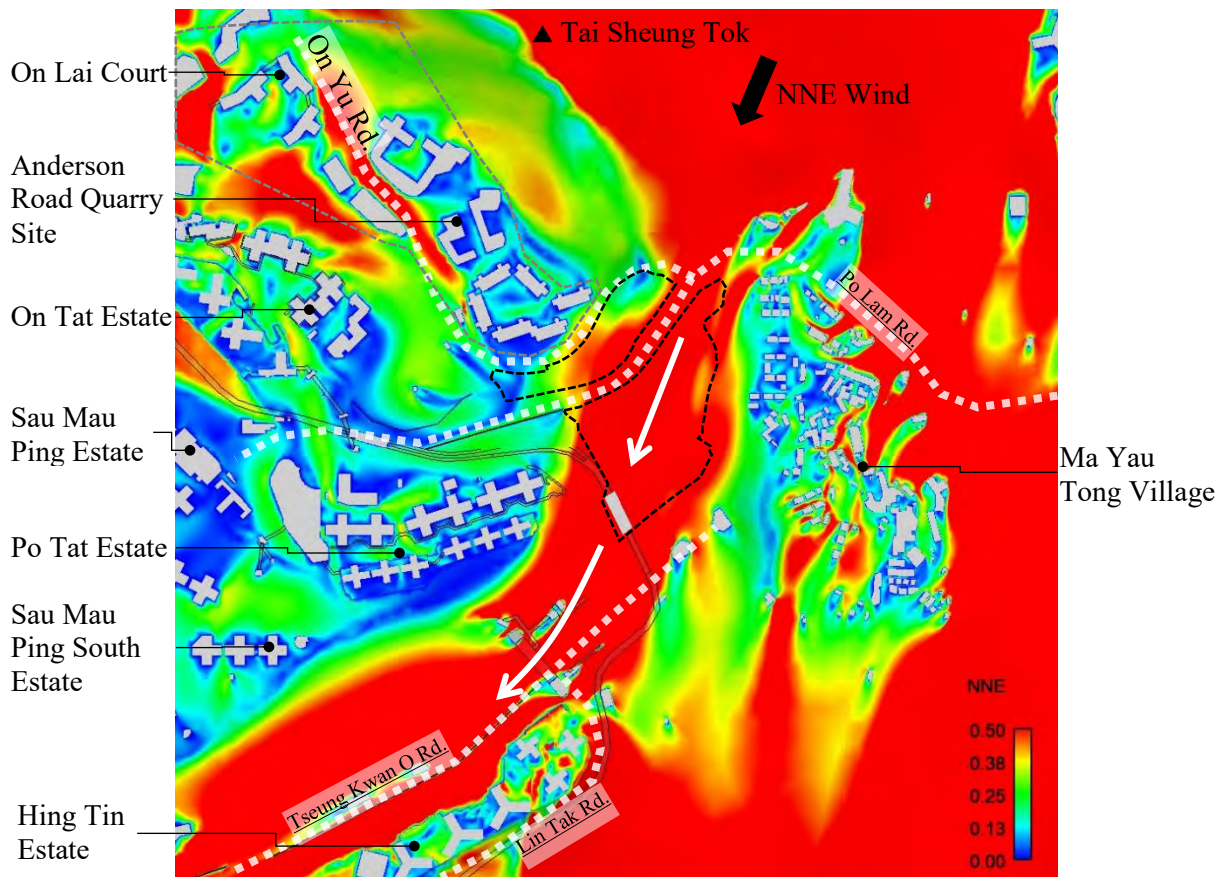


Figure 4.3.1 Wind Environment under NNE Wind under Baseline Scheme

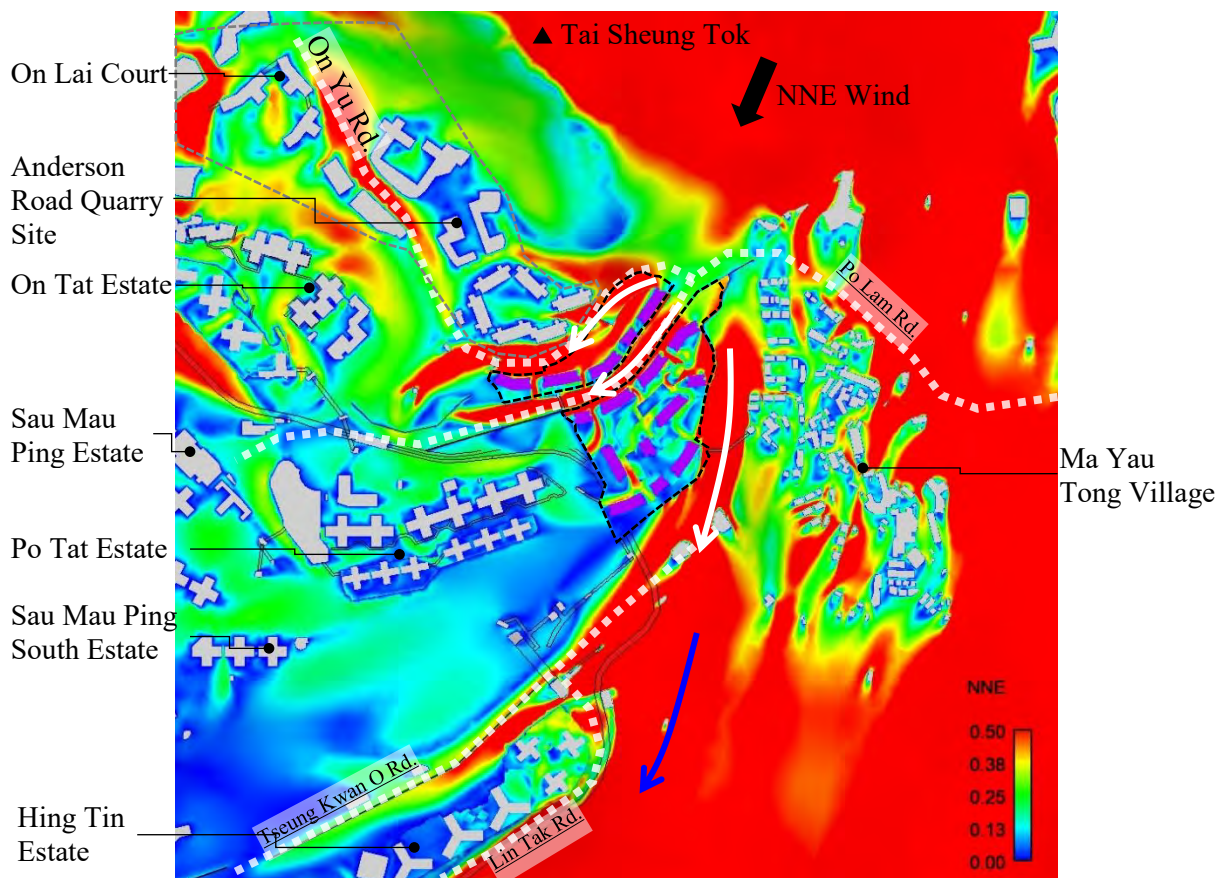


Figure 4.3.2 Wind Environment under NNE Wind under Indicative Development Scheme

B. NE Wind

- 4.3.10 The occurrence of NE wind is 9.3% under annual condition. The wind performance of Baseline and Indicative Development Schemes under NE wind are presented in Figure 4.3.3 and Figure 4.3.4 respectively.
- 4.3.11 Similar as NNE wind, the hilly terrain in Tai Sheung Tok, located at the upwind location of the Application Site, would create a relatively calm wind environment in the leeward side, where the densely built-up residential clusters located. The high-rise residential towers, including Anderson Road Quarry Site, Po Tat Estate, Sau Mau Ping Estate, and the hilly terrain would dominate the wind environment in area to the west of the Application Site. Nevertheless, some high-level wind would be captured by high-rise development, such as On Sau Court, On Lai Court and On Tat Estate. The captured wind would then penetrate across the Anderson Road Quarry Site and reach the open space (“O” and “OU” Zone) nearby.
- 4.3.12 The Tai Sheung Tok would divert the NE wind to travel down the relatively gentle slope to reach the Application Site, as indicated with black arrows in Figure 4.3.3 and Figure 4.3.4. The incoming wind would reach the Application Site freely.
- 4.3.13 Under Baseline Scheme, with the openness in the Application Site, the incoming wind would skim over and reach the leeward side. The incoming stream would be diverted by Po Tat Estate to travel along Po Lam Road and Tseung Kwan O Road, which would ventilate Sau Mau Ping Estate and Hing Tin Estate subsequently, as indicated with white arrows in Figure 4.3.3. Better ventilation performance would be expected at leeward side.
- 4.3.14 Under Indicative Development Scheme, the incoming wind would be diverted by the podium (The Northern Site) and depot structure (Main Site) to travel along On Yu Road, Po Lam Road and the western part of Ma Yau Tong Village, where higher VR would be observed, indicated by white arrows in Figure 4.3.4.
- 4.3.15 Although the wind would be diverted towards On Sau Road and slope area near Lin Tak Road with higher VR (blue arrows in Figure 4.3.4), with the high-rise topside development, calm wind environment would be observed at the leeward side, such as Po Tat Estate, Sau Mau Ping Estate, Hing Tin Estate and Tseung Kwan O Road.
- 4.3.16 On the other hand, the 2 nos. air paths aligned with NE-SW direction would facilitate wind penetration across the Application Site, illustrated by black dashed arrows in Figure 4.3.4. The penetrated wind would be downwashed by the façade of Po Tat Estate and the wind shadow to the east and north of Po Tat Estate would be slightly alleviated. The building separation in the Northern Site, such as Air Path #3, would facilitate some high-level wind penetration across the site and reach Po Lam Road.
- 4.3.17 In addition, the Ma Yau Tong Village located to the west of the Application Site is at windward side where the wind availability would be sufficient. There would be insignificant ventilation impact on Ma Yau Tong Village from Application Site.
- 4.3.18 Under Revised Indicative Development Scheme, the widened Air Path #1 and lowered level of podium at Airpath #1, aligned with NE-SW direction would further facilitate wind penetration across the Application Site. The wind shadow to the east and north of Po Tat Estate would be alleviated, contributing to slightly better

ventilation performance at Po Tat Estate and Sau Mau Ping Catholic Primary School as compared with Indicative Development Scheme.

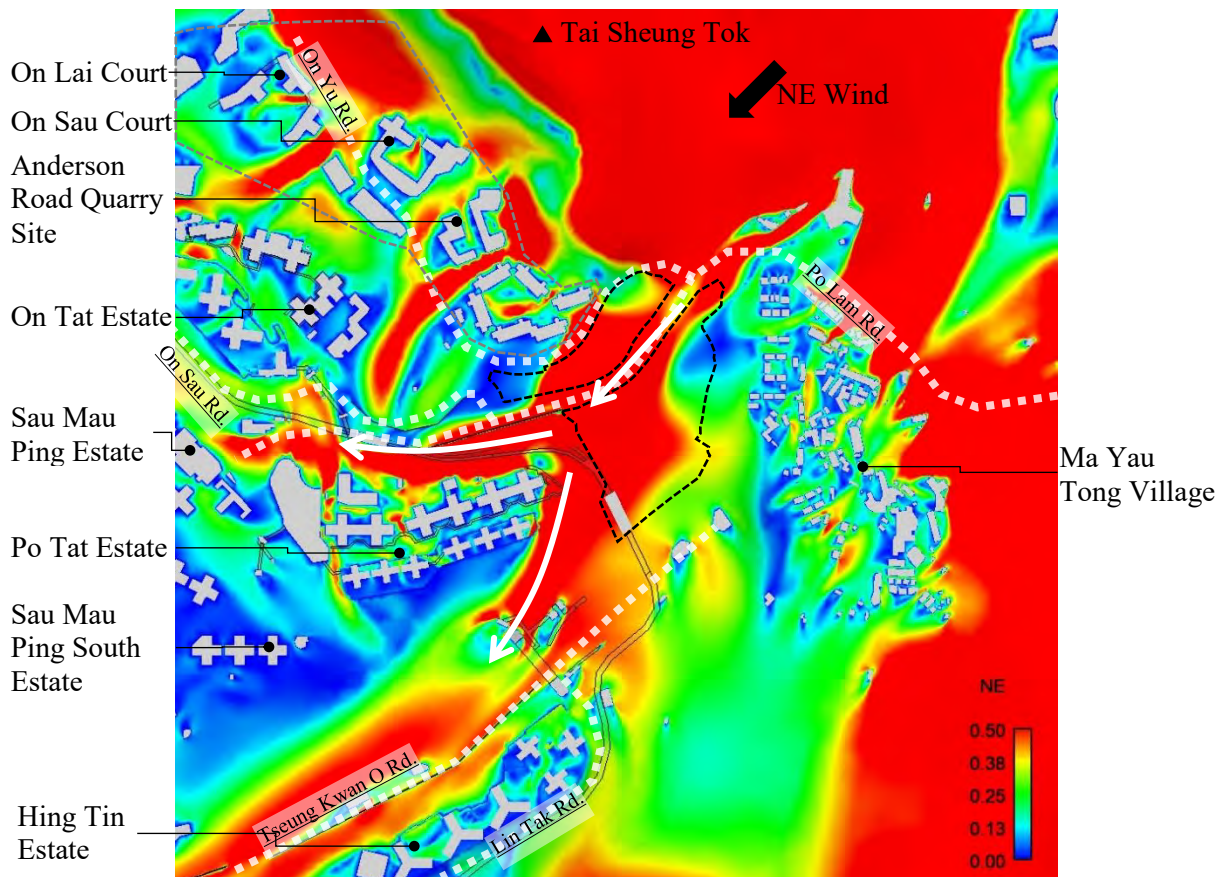


Figure 4.3.3 Wind Environment under NE Wind under Baseline Scheme

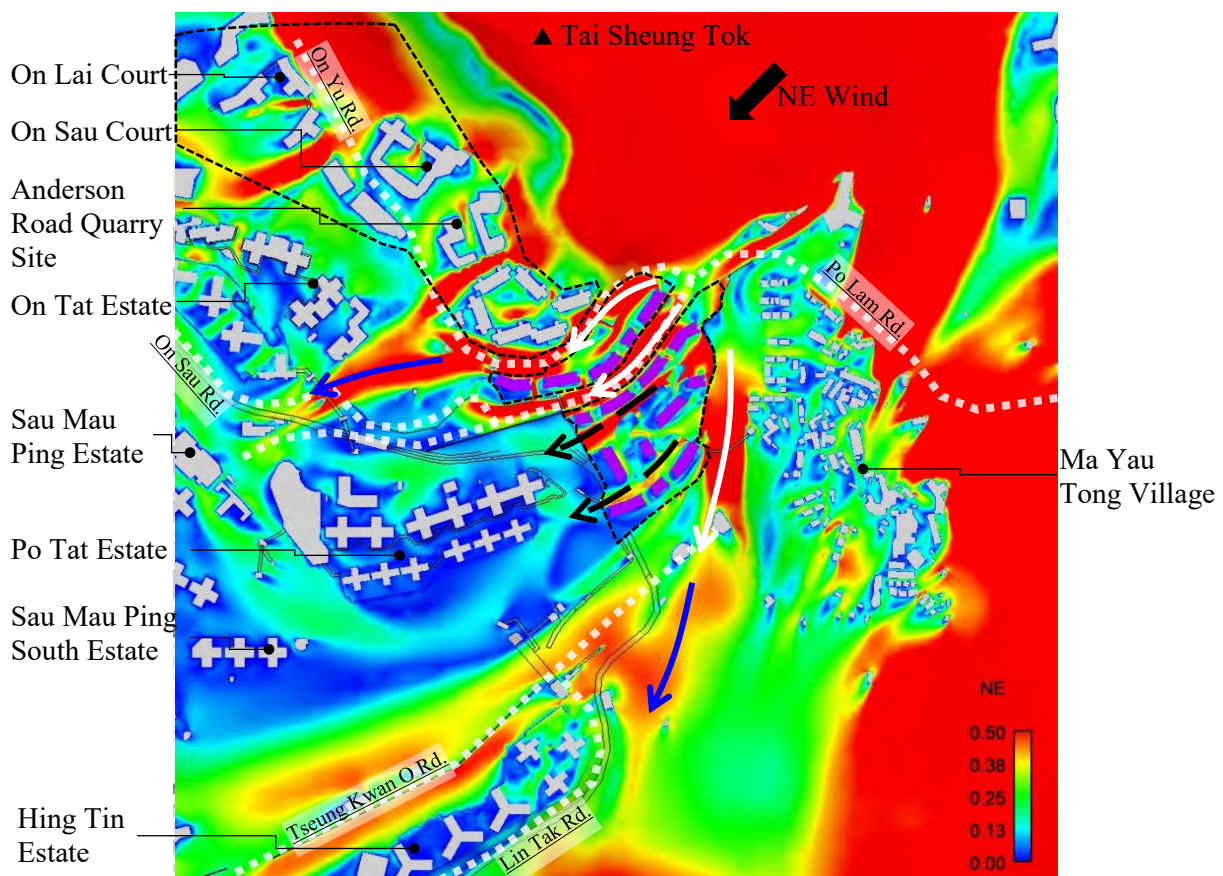


Figure 4.3.4 Wind Environment under NE Wind under Indicative Development Scheme

C. ENE/E Wind

- 4.3.19 The occurrence of ENE wind is 17.5% under annual condition, and that of E wind is 18.2% under annual condition and 8.6% in summer condition. The wind performance under ENE and E winds are similar apart from some difference in localized area. Hence, they would be discussed together under this section. The wind performance of Baseline and Indicative Development Schemes under ENE and E wind are presented in Figure 4.3.5 to Figure 4.3.8.
- 4.3.20 The ENE wind would reach the Application Site and the surrounding area from the relatively gentle slope in the southern part of Tai Sheung Tok, indicated with black arrows in Figure 4.3.5 to Figure 4.3.8. Some of the incoming wind would skim over the mid-rise school clusters in Anderson Road Quarry Site and reattach to ground and reach the pedestrian level, such as On Yu Road. Some high-level wind would be downwashed by high-rise façades in On Tat Estate and subsequently flow towards nearby open space (“O” and “OU” Zone) and within On Tat Estate. The wind environment near the Anderson Road Quarry Site would be similar under both schemes.
- 4.3.21 Another stream of air would reach the site freely after skimming over the low-rise Ma Yau Tong Village at upwind location. Under Baseline Scheme, with the openness within the Application Site, the incoming wind would reattach to ground quickly after skimming over the village buildings. The incoming wind would continue to travel along Po Lam Road without obstruction and ventilate the densely built-up area such as Sau Mau Ping Estate and Po Tat Estate. With the gentle slope within the Application Site, some of the wind would reach towards Tseung Kwan O Road at lower elevation. (illustrated with white arrows in Figure 4.3.5 and Figure 4.3.6).
- 4.3.22 Under Indicative Development Scheme, the podium in The Northern Site would divert the incoming wind to travel along On Yu Road and Po Lam Road (illustrated with white arrows in Figure 4.3.6 and Figure 4.3.8). However, as these road networks are not aligned with incoming wind direction, the incoming wind could penetrate further into the leeward side. Together with the high-rise topside development, incoming wind would be shielded for the leeward side, such as On Sau Court, Po Tat Estate, On Tat Estate and Sau Mau Ping Estate.
- 4.3.23 On the other hand, the 2 nos. air paths aligned with NE-SW direction and the 1 nos. air paths aligned with E-W direction would facilitate wind penetration across the Application Site, illustrated by black dashed arrows in Figure 4.3.4. The penetrated wind would help to alleviate the wind shadow to the east of Po Tat Estate slightly.
- 4.3.24 The row of residential towers near the southern site boundary of Main Site would capture and divert high-level incoming wind to reach podium and pedestrian level, illustrated with grey arrows in Figure 4.3.6 and Figure 4.3.8. Such phenomenon would be more obvious under E wind condition, as the frontal area facing incoming wind direction would be larger. The wind environment in the open space adjacent to Tseung Kwan O Road (“GB” Zone) would be enhanced under Indicative Development Scheme.
- 4.3.25 In addition, Main Site of Indicative Development Scheme would divert the incoming wind to travel between the depot of Main Site and Ma Yau Tong Village, indicated

by blue arrow in Figure 4.3.6 and Figure 4.3.8. Higher VR would be observed in the western part of Ma Yau Tong Village and the slope area of Black Hill further down the south.

- 4.3.26 Moreover, the residential clusters in Lam Tin, such as Hing Tin Estate, are located to the south of the Application Site, which would fall outside the influence zone from the Application Site. There would be insignificant ventilation impact on these areas from Application Site.
- 4.3.27 As the building separations, building height and other air paths are generally maintained, the overall ventilation performance under Revised Indicative Development Scheme would remain similar as Indicative Development Scheme.
- 4.3.28 Under Revised Indicative Development Scheme, the widened Air Path #1 and lowered level of podium at Airpath #1, aligned with NE-SW direction would further facilitate wind penetration across the Application Site. The wind shadow to the east of Po Tat Estate would be slightly alleviated, contributing to better ventilation performance at Po Tat Estate and Sau Mau Ping Catholic Primary School as compared with Revised Indicative Development Scheme.

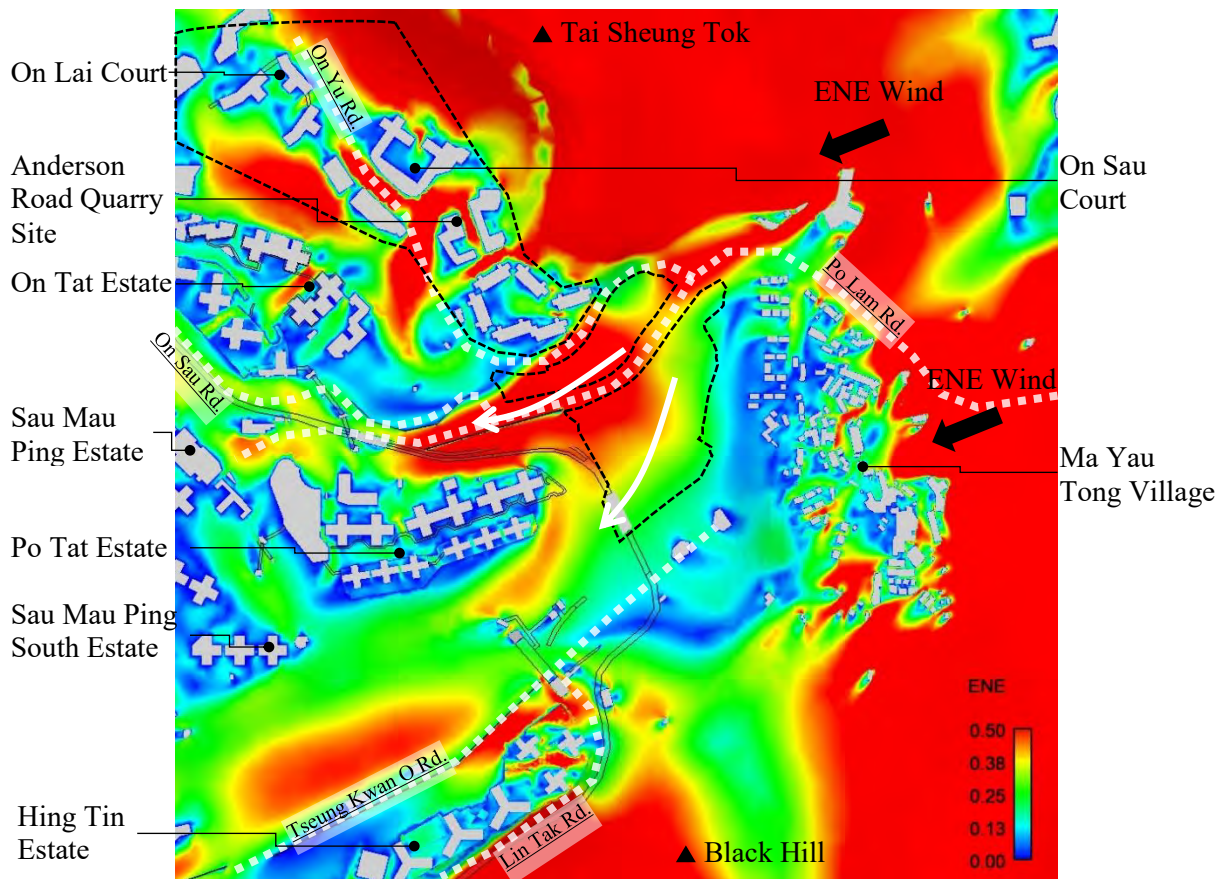


Figure 4.3.5 Wind Environment under ENE Wind under Baseline Scheme

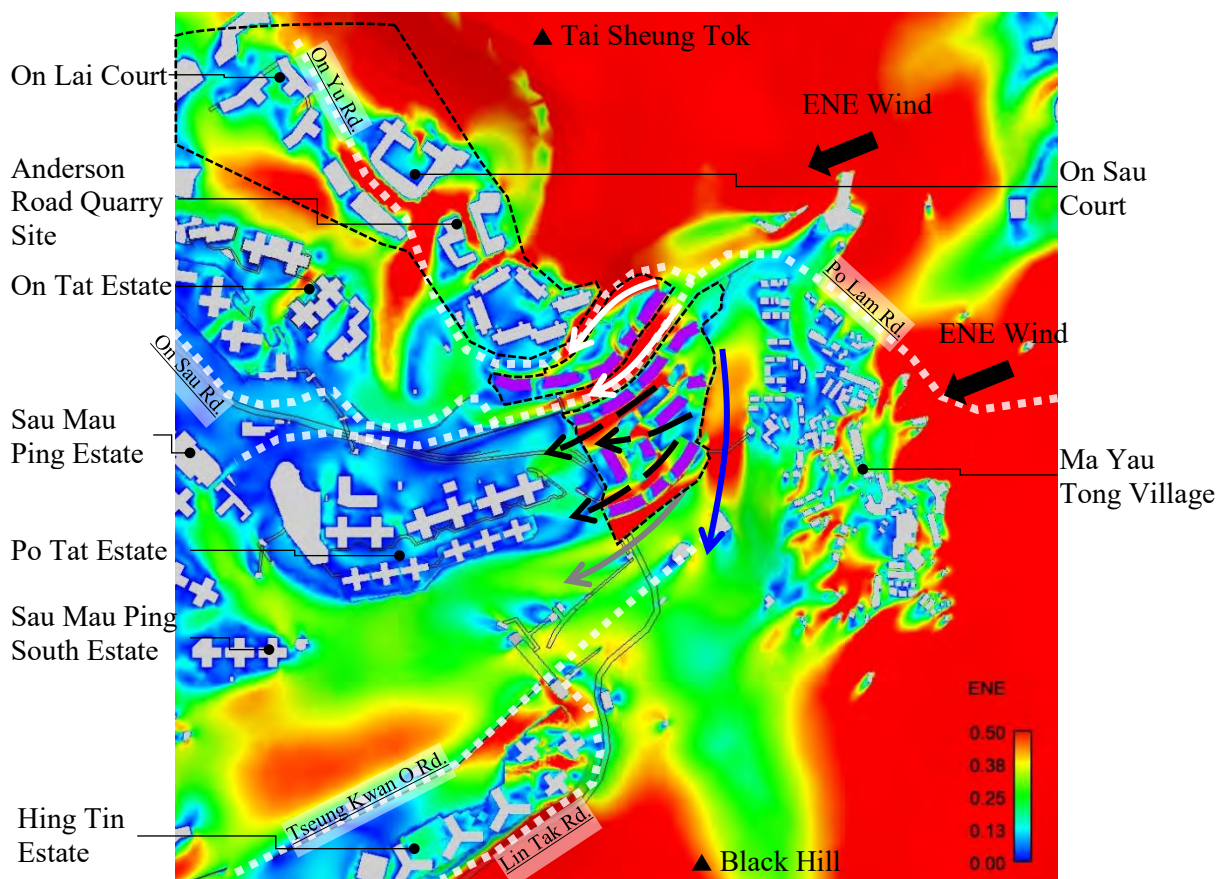


Figure 4.3.6 Wind Environment under ENE Wind under Indicative Development Scheme

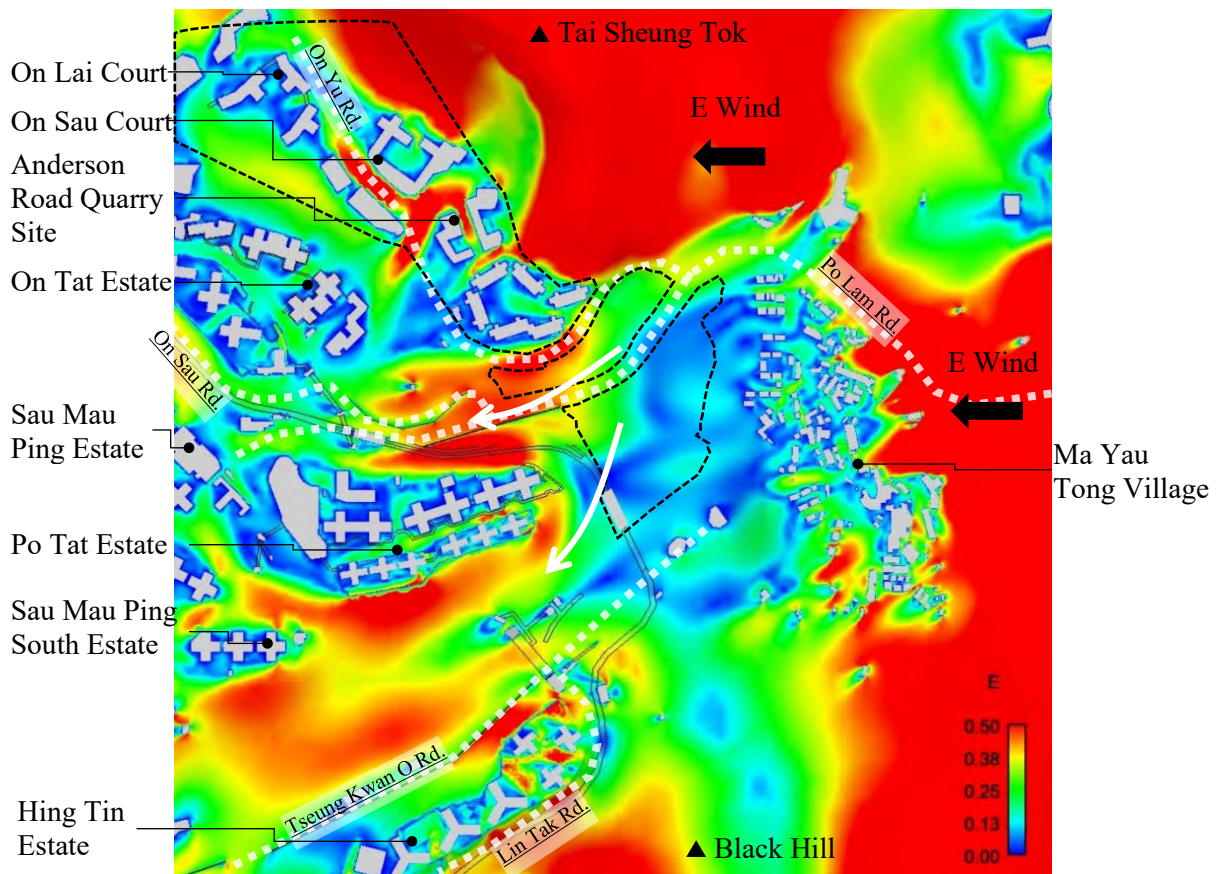


Figure 4.3.7 Wind Environment under E Wind under Baseline Scheme

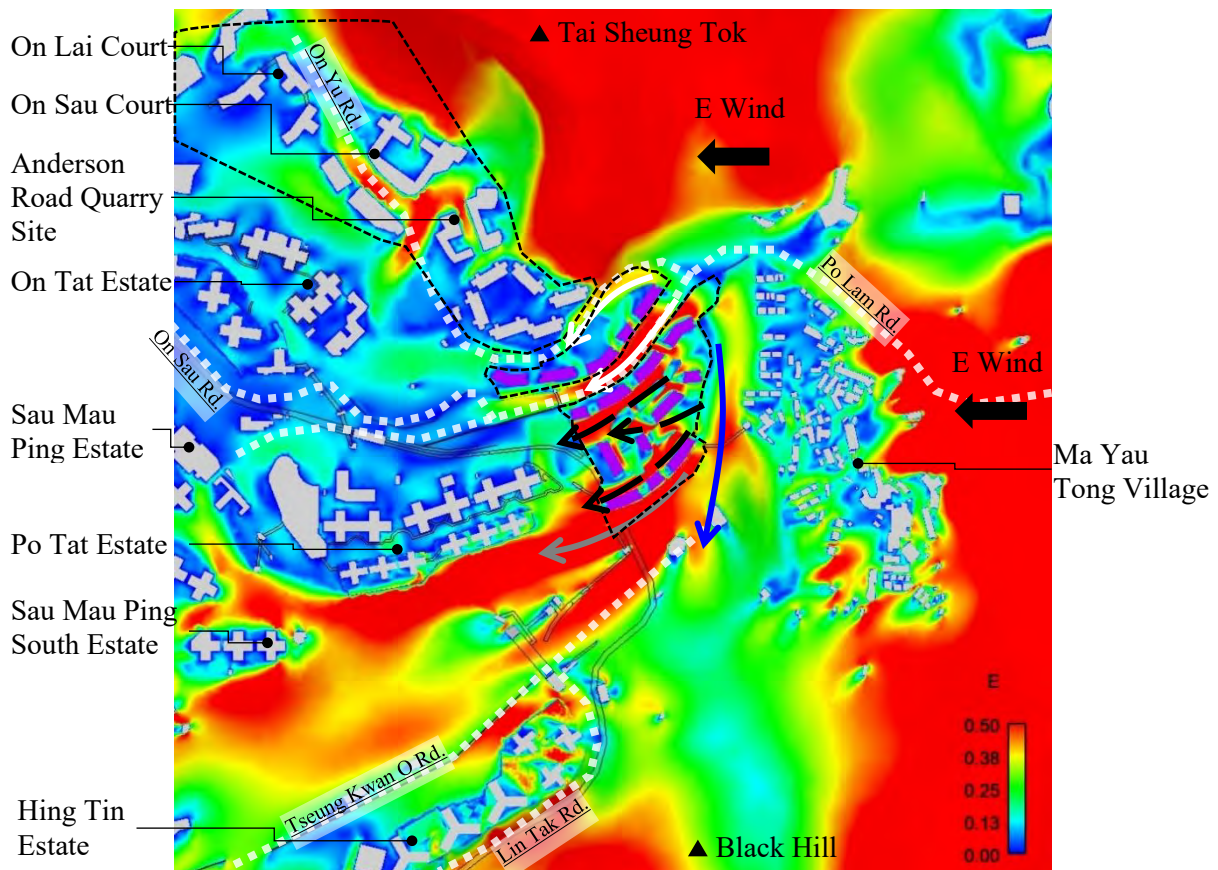


Figure 4.3.8 Wind Environment under E Wind under Indicative Development Scheme

D. ESE/SE Wind

- 4.3.29 The occurrence of ESE wind is 8.7% under annual condition and 7.9% under summer condition. The occurrence of SE wind is 6.0% under annual condition and 6.7% under summer condition. The wind performance under ESE and SE winds are similar apart from some difference in localized area. Hence, they would be discussed together under this section. The wind performance of Baseline and Indicative Development Schemes under ESE and SE wind are presented in Figure 4.3.9 to Figure 4.3.12.
- 4.3.30 The Application Site and surrounding areas are located at the leeward side of Black Hill under ESE/SE wind. The residential clusters in Lam Tin, such as Hing Tin Estate, are located at the windward side of the Application Site, which would achieve similar ventilation performance under both schemes. The high-level wind would be captured by the façade of Po Tat Estate and diverted to travel towards southwest direction, illustrated with black dashed arrows in Figure 4.3.9 and Figure 4.3.10.
- 4.3.31 Another stream of incoming wind would skim over the low-rise Ma Yau Tong Village at windward side and reach the Application Site freely, indicated with black arrows in Figure 4.3.9 to Figure 4.3.12.
- 4.3.32 Under Baseline Scheme, with the openness within the Application Site, the incoming wind would reattach to ground quickly after skimming over Ma Yau Tong Village. The incoming wind would continue to travel along Po Lam Road and nearby open space (“O” and “OU” Zone) without obstruction and ventilate the densely built-up area such as On Tat Estate, Sau Mau Ping Estate and Po Tat Estate, illustrated with white arrow in Figure 4.3.9 and Figure 4.3.11.
- 4.3.33 Under Indicative Development Scheme, the high-rise topside development would induce downwash effect near and within the Application Site. With the tower layout and height profile provided, the captured wind would be able to reach pedestrian level, enhance the VR at localized area along Po Lam Road, at the western part of Ma Yau Tong Village, up the Black Hill and travel towards open space adjacent to Tseung Kwan O Road (“GB” Zone), illustrated by grey arrow in Figure 4.3.10 and Figure 4.3.12. The wind environment in these areas would be enhanced as compared with Baseline Scheme.
- 4.3.34 Together with the elevated design underneath the southern part of the depot in Main Site, the incoming wind would travel at pedestrian level and reach the leeward side, such as Po Tat Estate, illustrated with blue arrows in Figure 4.3.10 and Figure 4.3.12, which help to alleviate the wind shadow at Po Tat Estate slightly.
- 4.3.35 In addition, the air paths provided within the Application Site, although not aligned with incoming wind direction, generally enhance the permeability within the Application Site, allowing the downwashed wind to enhance the wind environment at the podium level in Main Site.
- 4.3.36 Nevertheless, the strong downwash effect from the Application Site would limit the incoming ESE/SE wind to travel further towards the leeward side. Hence, wind shadow and relatively calm wind environment would be observed at Po Tat Estate, On Tat Estate and Anderson Road Quarry Site.

- 4.3.37 Under Revised Indicative Development Scheme, as the building separations, building height and other air paths are generally maintained similar as Indicative Development Scheme, there would be no significant changes to the overall ventilation performance as compared with Indicative Development Scheme.

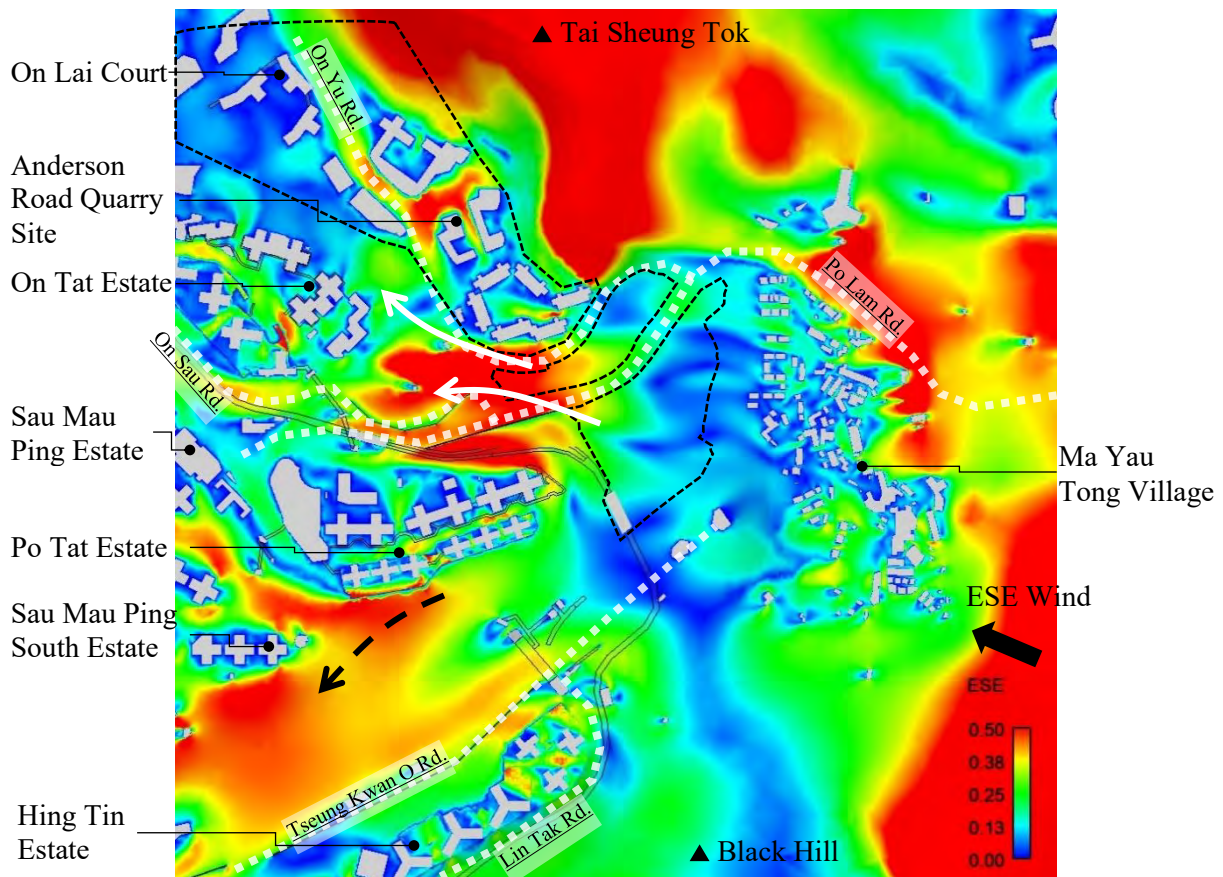


Figure 4.3.9 Wind Environment under ESE Wind under Baseline Scheme

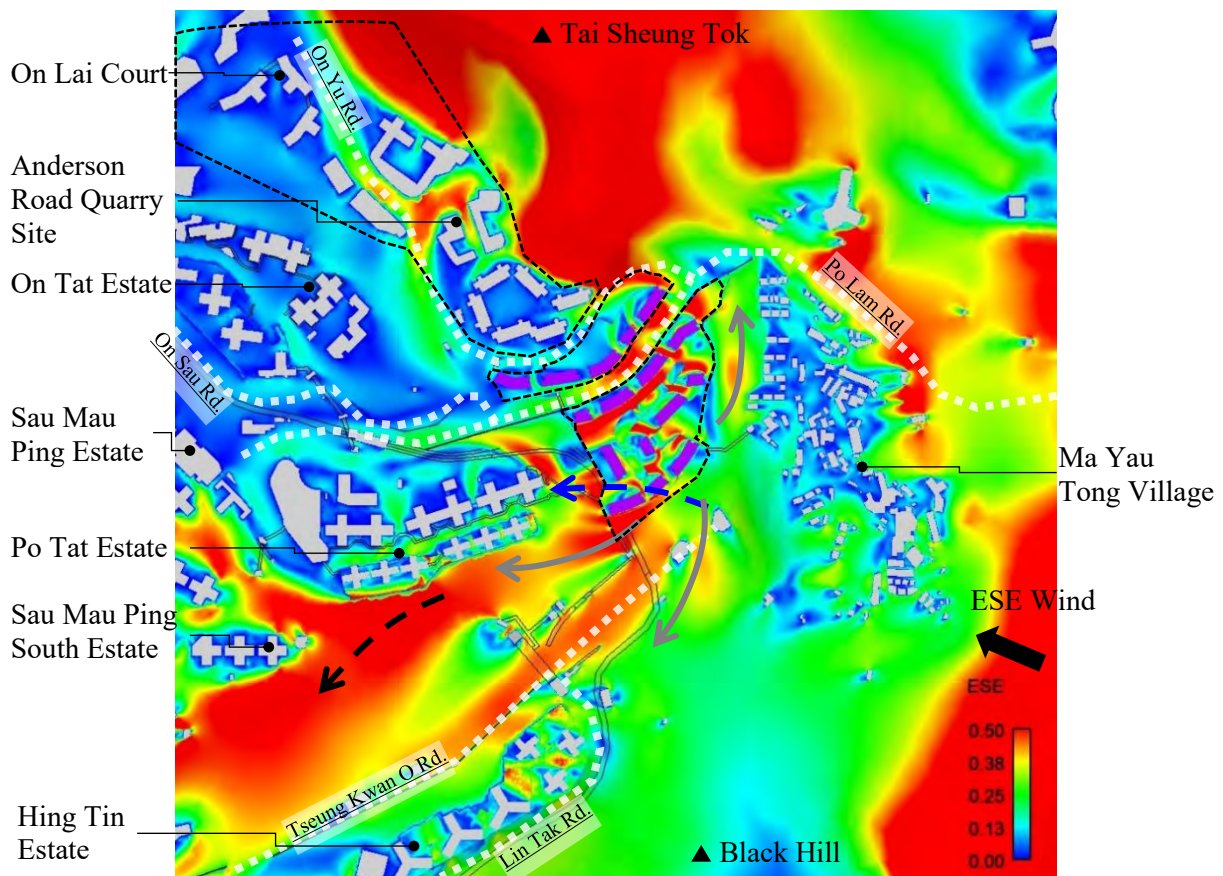


Figure 4.3.10 Wind Environment under ESE Wind under Indicative Development Scheme

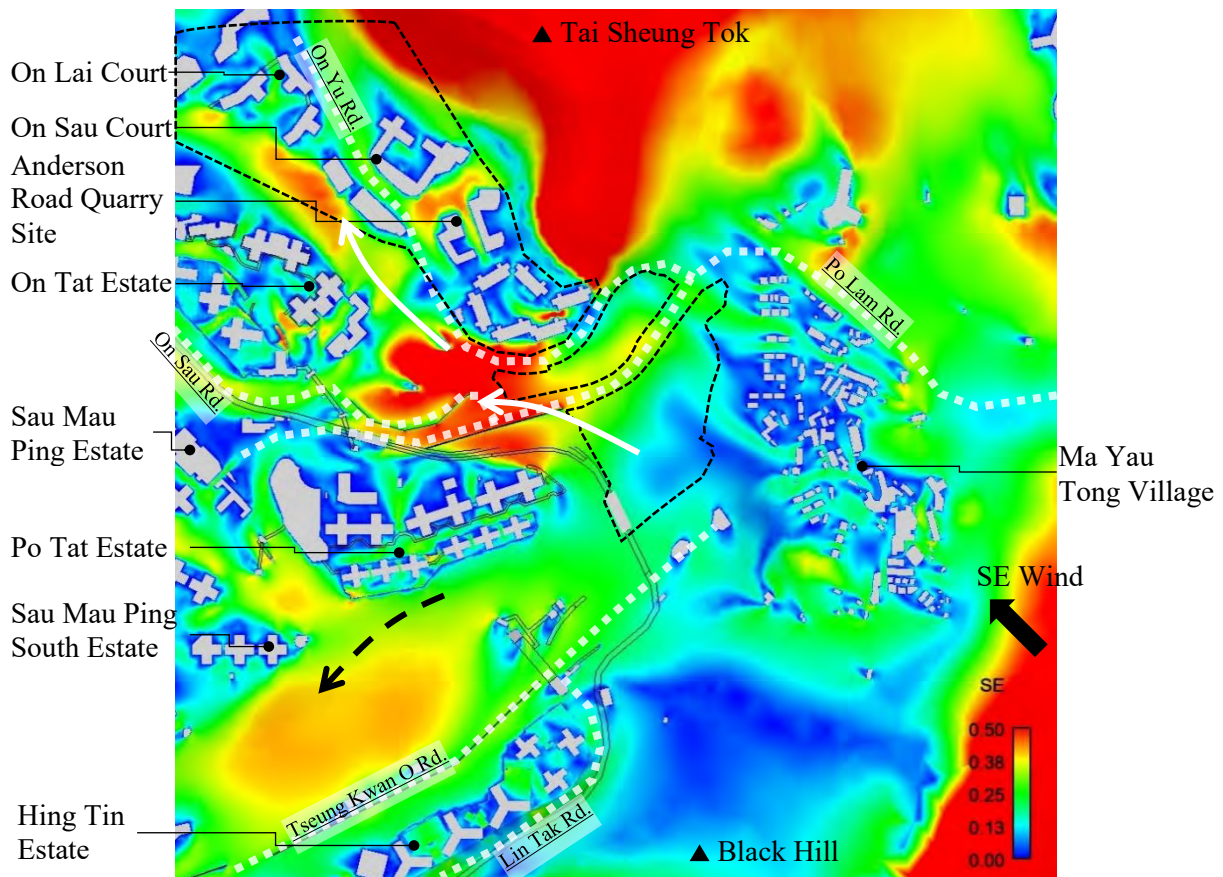


Figure 4.3.11 Wind Environment under SE Wind under Baseline Scheme

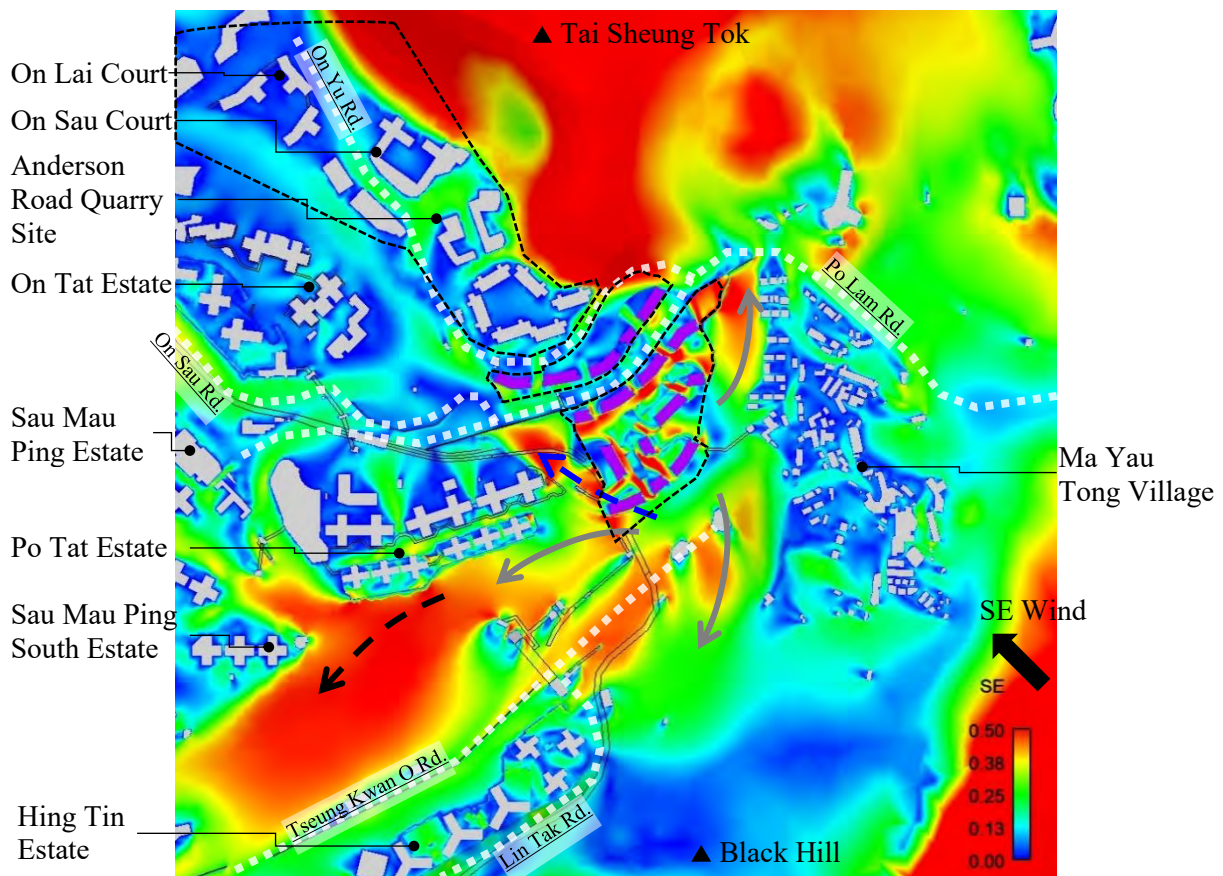


Figure 4.3.12 Wind Environment under SE Wind under Indicative Development Scheme

E. SSE Wind

- 4.3.38 The occurrence of SSE wind is 7.7% under summer condition. The wind performance of Baseline and Indicative Development Schemes under SSE wind are presented in Figure 4.3.13 and Figure 4.3.14 respectively.
- 4.3.39 The Application Site and surrounding areas are located at the leeward side of Black Hill under SSE wind. The wind availability would be dominated by the Black Hill, illustrated with black dashed arrows in Figure 4.3.13 and Figure 4.3.14. The residential clusters in Lam Tin, such as Hing Tin Estate, are located at the windward side of the Application Site, which would achieve similar ventilation performance under both schemes. Downwash effect would be induced at the façade of Po Tat Estate to ventilate the open space (“GB” Zone) adjacent to Tseung Kwan O Road.
- 4.3.40 Under Baseline Scheme, the incoming wind would penetrate cross the Application Site to reach the Tai Sheung Tok at leeward side. With various height profile in surrounding area, the high-rise residential towers in Po Tat Estate, On Sau Court and On Tat Estate would be able to capture high-level wind to ventilate nearby pedestrian level, such as eastern part of Po Tat Estate, On Yu Road and adjacent open space (“OU” and “O” Zone), illustrated with white arrow in Figure 4.3.13.
- 4.3.41 Under Indicative Development Scheme, the high-rise topside development would divert the wind to travel around Main Site. More wind would be diverted towards the Ma Yau Tong Village, where slightly better wind environment would be observed, illustrated by white arrow in Figure 4.3.14.
- 4.3.42 In addition, the high-rise residential towers would induce downwash effect to reach the upwind area of Main Site. Such downwashed airflow encounter the opposite flow travelling down the Black Hill and result in a calmer wind environment near the slope of Black Hill.
- 4.3.43 Nevertheless, the high-rise towers of the Application Site would shield the incoming wind for the high-rise façade at leeward side. Wind shadow area would be observed at Site R2-9, R2-10 to the immediate north of the Application Site. The downwash effect induced at the façade of On Tat Estate, On Sau Court would be less significant and the wind environment to the northwest of the Application Site would be slightly calmer, as compared with Baseline Scheme.
- 4.3.44 Within the Application Site, the tower layout and height profile provided can facilitate more wind to be captured. The air paths and building separations provided are effective to enhance the site permeability and promote air movement and enhance wind environment at podium level within the Application Site. The building separation aligned with SSE direction in Main Site and The Northern Site would allow some wind penetration to alleviate the wind shadow at Site R2-9, R2-10, illustrated with black dashed arrow in Figure 4.3.14.
- 4.3.45 Under Revised Indicative Development Schemes, as the building separations, building height and other air paths are generally maintained similar as Indicative Development Scheme, there would be no changes to air paths aligned with incoming wind direction. Hence, there would be no significant changes to the overall ventilation performance as compared with Indicative Development Scheme.

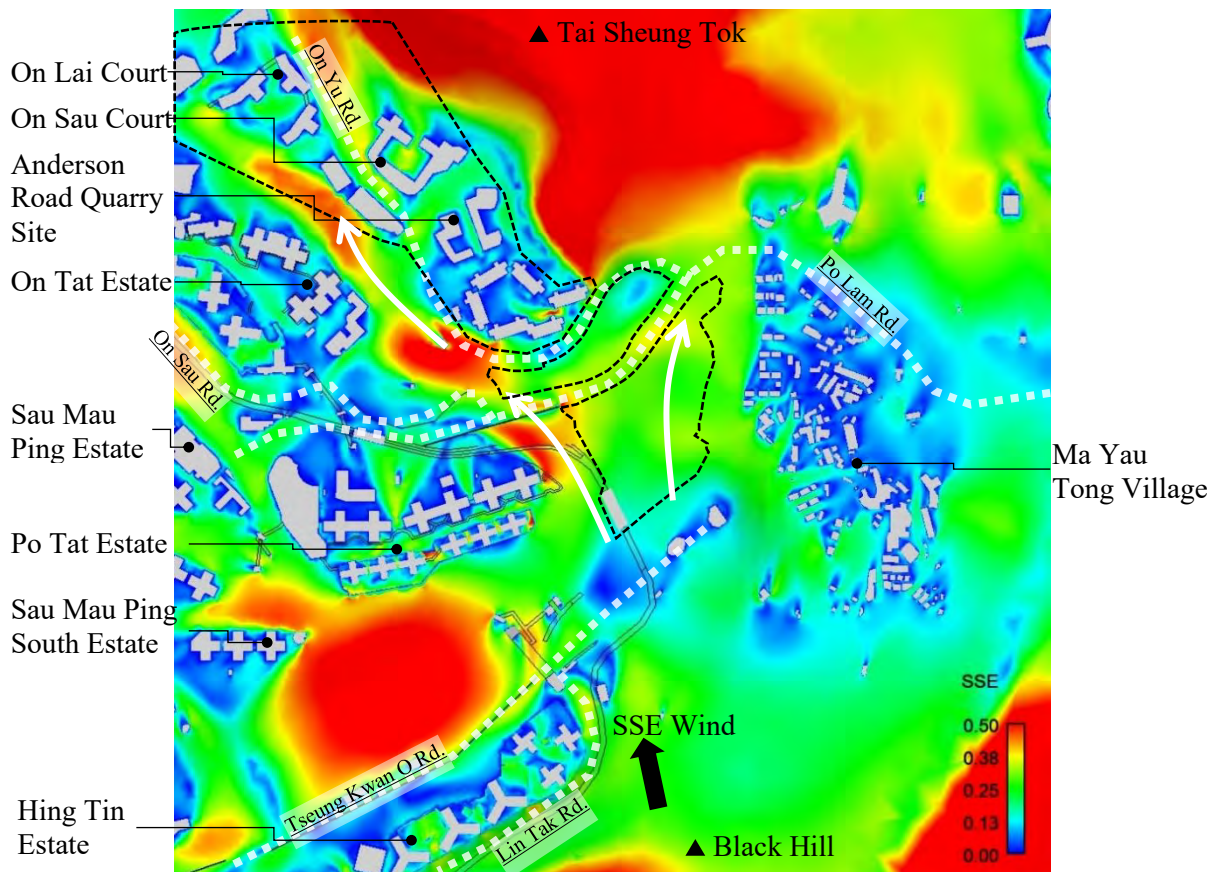


Figure 4.3.13 Wind Environment under SSE Wind under Baseline Scheme

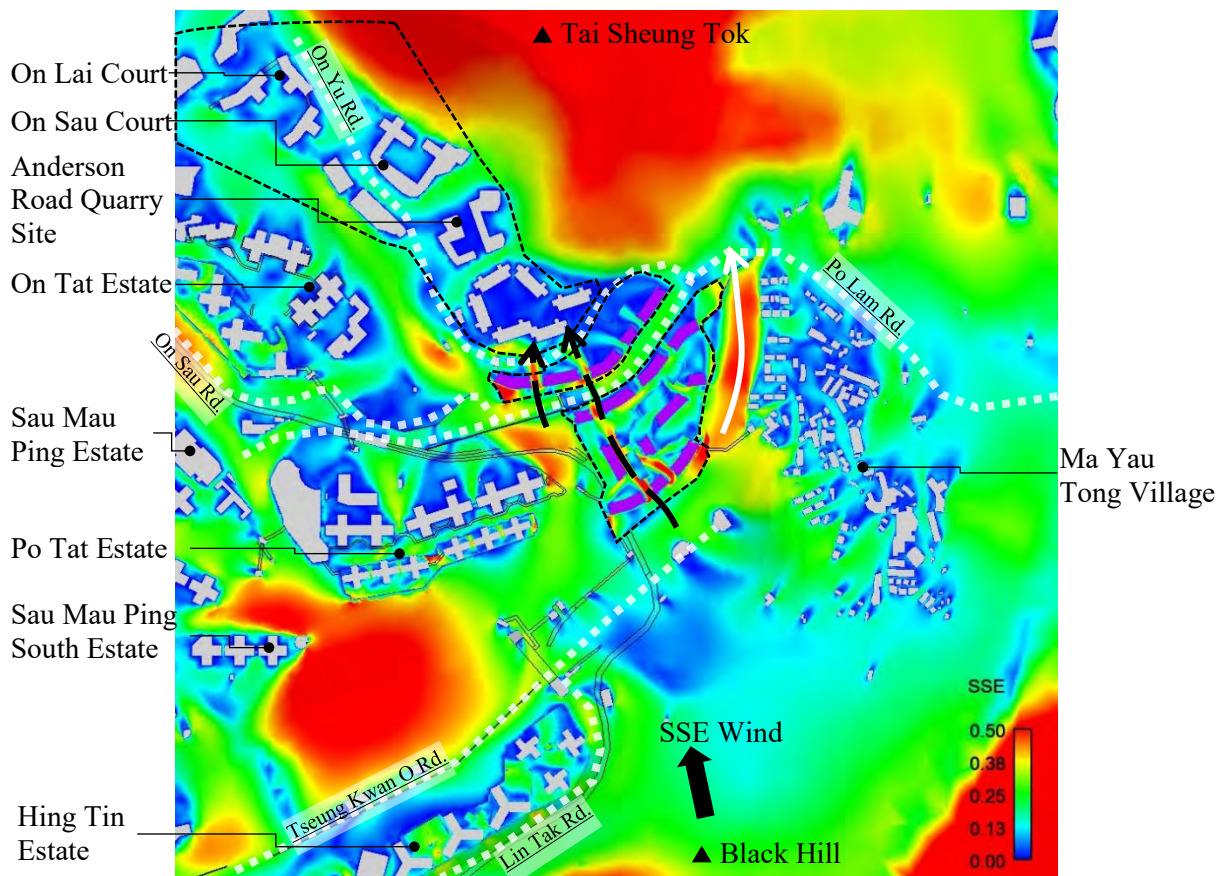


Figure 4.3.14 Wind Environment under SSE Wind under Indicative Development Scheme

F. S Wind

- 4.3.46 The occurrence of S wind is 9.2% under summer condition. The wind performance of Baseline and Indicative Development Schemes under S wind are presented in Figure 4.3.15 and Figure 4.3.16 respectively.
- 4.3.47 Although the Black Hill would shield some incoming wind for the Application Site and the surrounding area, the incoming wind would be diverted by the terrain to reach the Application Site from Tseung Kwan O Road and the adjacent “GB” Zone and down the hill of Black Hill, illustrated by grey arrows in Figure 4.3.15 and Figure 4.3.16.
- 4.3.48 Under Baseline Scheme, the incoming wind would penetrate cross the Application Site to reach the Tai Sheung Tok at leeward side, illustrated by white arrow in Figure 4.3.15. Downwash effect would be observed at the façade of Po Tat Estate and On Sau Court due to the height difference. The downwashed wind would join the incoming wind and continue to ventilate the leeward side, illustrated by black dashed arrow in Figure 4.3.15.
- 4.3.49 Under Indicative Development Scheme, the high-rise residential towers would induce downwash effect to reach the upwind area of Main Site. Such downwashed airflow encounter the opposite flow travelling from Tseung Kwan O Road and result in a calmer wind environment near the Tseung Kwan O Road and the adjacent “GB” Zone. With the high-level wind captured by Application Site, limited wind would reach the façade of On Sau Court. Hence, relatively calmer wind environment would be observed in the “O” and “OU” Zone near On Tat Estate and Po Tat Estate.
- 4.3.50 The tower layout in The Northern Site allowed the incoming wind to be captured and travel along Po Lam Road. Nevertheless, together with the built-up area in Anderson Road Quarry Site, cumulative wind shadow would be casted over the slope area of Tai Sheung Tok.
- 4.3.51 In addition, the Ma Yau Tong Village located to the west of the Application Site is at windward side where the wind availability would be sufficient. There would be insignificant ventilation impact on Ma Yau Tong Village from Application Site.
- 4.3.52 Under Revised Indicative Development Scheme, as the building separations, building height and other air paths are generally maintained the same as Indicative Development Scheme and there would be no changes to air paths aligned with incoming wind direction, the overall ventilation performance under both schemes would remain similar.

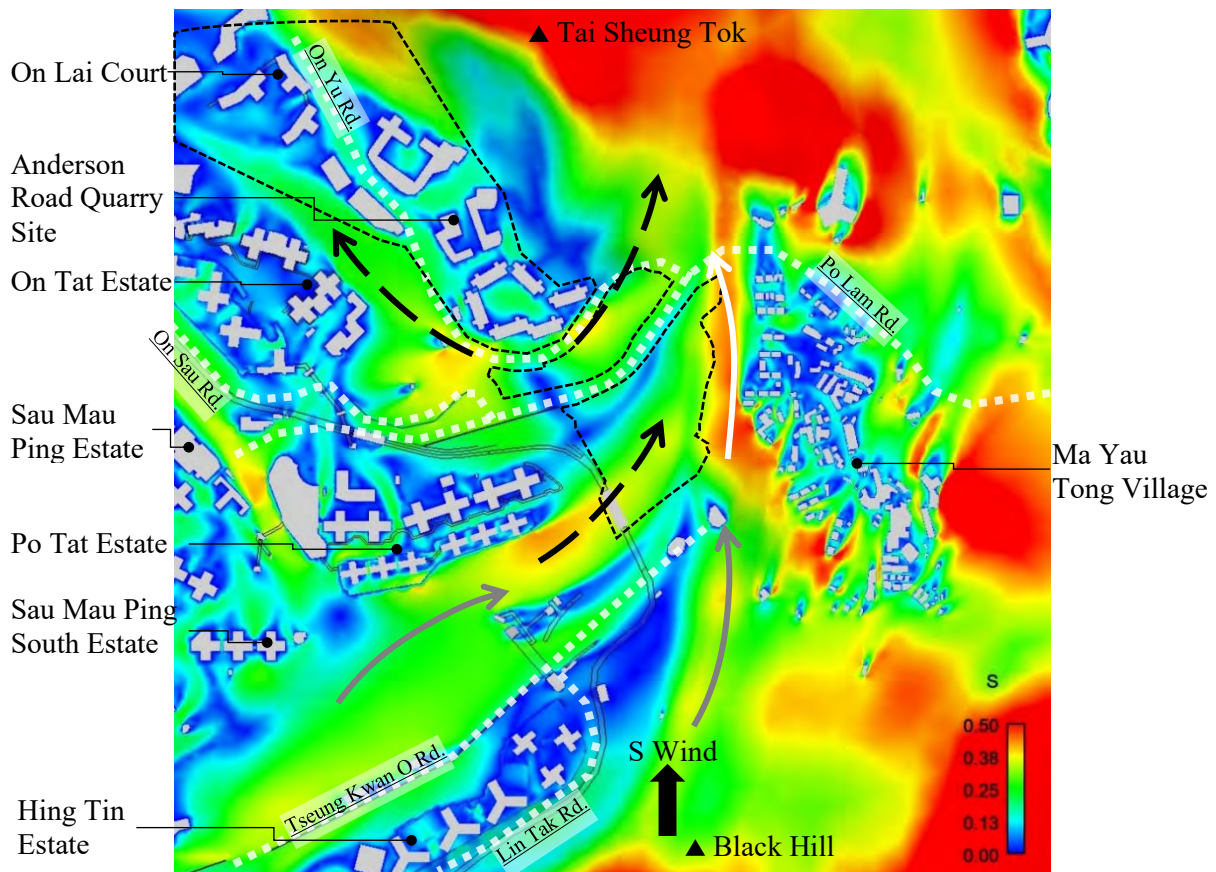


Figure 4.3.15 Wind Environment under S Wind under Baseline Scheme

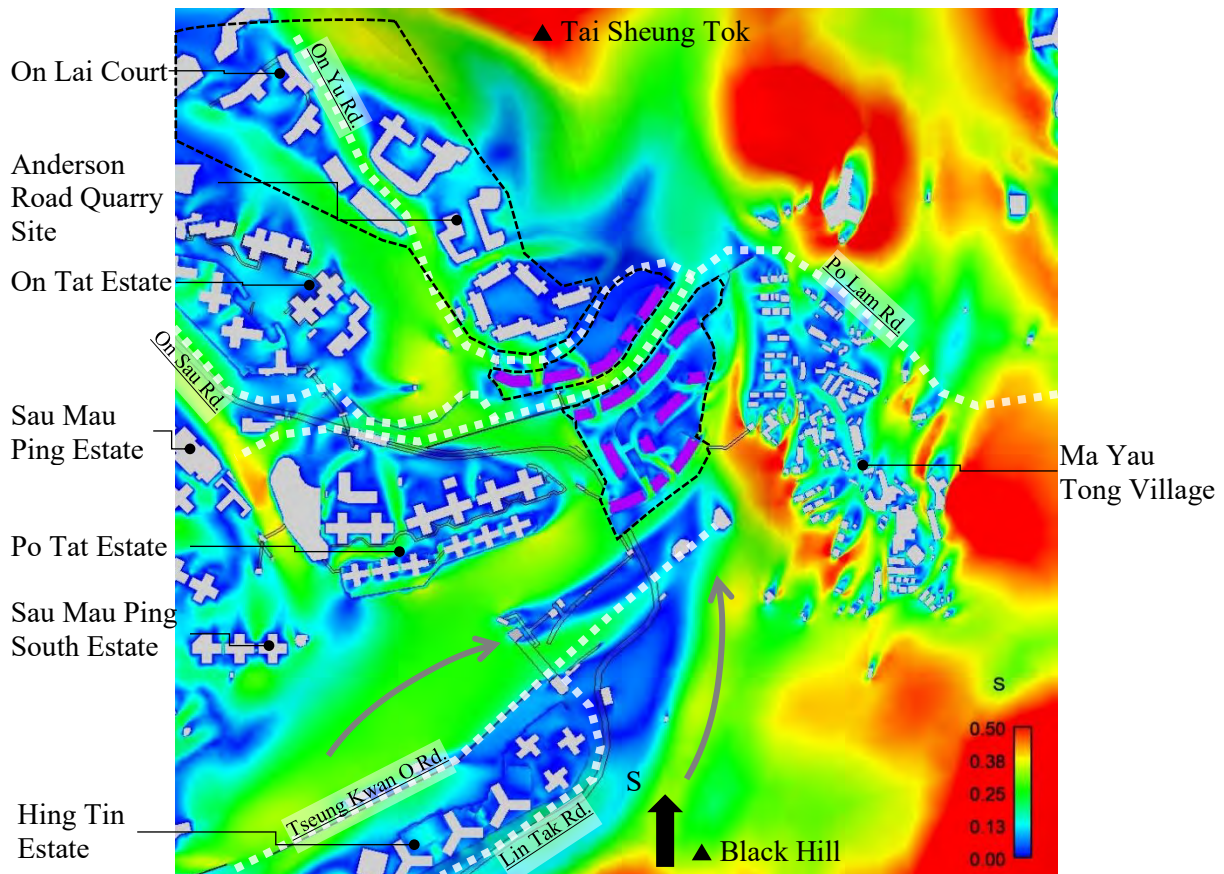


Figure 4.3.16 Wind Environment under S Wind under Indicative Development Scheme

G. SSW Wind

- 4.3.53 The occurrence of SSW wind is 6.3% under annual condition and 14.1% under summer condition. The wind performance of Baseline and Indicative Development Schemes under SSW wind are presented in Figure 4.3.17 and Figure 4.3.18 respectively.
- 4.3.54 The Tseung Kwan O Road with the adjacent “GB” Zone would act as the main wind entrance for SSW to reach the Application Site, illustrate with grey arrows in Figure 4.3.17 and Figure 4.3.18. The high-rise towers in Po Tat Estate would capture some incoming wind. The captured wind would join the incoming wind direction and continue to reach Application Site. The densely build-up residential areas in Sau Mau Ping, Po Tat Estate, On Tat Estate, Anderson Road Quarry Site and Lam Tin are located at windward side, which would dominate the wind environment in the area.
- 4.3.55 Under Baseline Scheme, with the openness in the Application Site, the incoming wind would penetrate across the Application Site and ventilate the low-rise Ma Yau Tong Village, where slightly higher VR would be observed. With the height difference with adjacent development, downwash effect would be induced at the southern façade of Site R2-9/R2-10, which would then subsequently ventilate nearby area such as On Yu Road, illustrated with black dashed arrow in Figure 4.3.17.
- 4.3.56 Under Indicative Development Scheme, the high-rise residential towers would induce downwash effect at the southwestern façade in Main Site. The air paths aligned with NE- SW direction would facilitate the downwashed wind to penetrate across the Application Site, illustrated with black dashed arrows in Figure 4.3.18. The wind environment at the podium level would be higher as compared with other location within the Assessment Area. On the other hand, some downwashed airflow encounter the opposite flow travelling from Po Tat Estate and result in a calmer wind environment near Po Tat Estate.
- 4.3.57 The façades of the towers in The Northern Site would result in more significant downwash, as compared with Baseline Scheme, illustrated by blue arrow in Figure 4.3.18. Better wind environment would be observed near the Shau Kei Wan East Government Secondary School and Po Leung Kuk Luk Hing Too Primary School. The building separation in the Northern Site, such as Air Path #3, would allow some downwashed wind penetration and alleviate the wind shadow at On Yu Road and Site R2-9/R2-10 slightly.
- 4.3.58 Nevertheless, the high-rise towers of the Application Site would shield the incoming wind for the leeward side. Wind shadow area would be observed at Ma Yau Tong Village, Haven of Hope Sunnyside School, Site R2-9, R2-10 of the Application Site and the northern part of Anderson Road Quarry Site.
- 4.3.59 Under Revised Indicative Development Scheme, the wider air path (Air Path #1 in Figure 2.3.13), and lowered level of podium at Airpath #1 aligned with NE-SW direction would further facilitate wind penetration across the Application Site. The wind environment at the podium level would be higher as compared with other location within the Assessment Area as compared with the Indicative Development Scheme.

- 4.3.60 Moreover, the high-rise towers of the Application Site would shield the incoming wind for the leeward side. Wind shadow area would be observed at Ma Yau Tong Village and Haven of Hope Sunnyside School. The wider air path would slightly alleviate the wind shadow at Ma Yau Tong Village and Haven of Hope Sunnyside School.

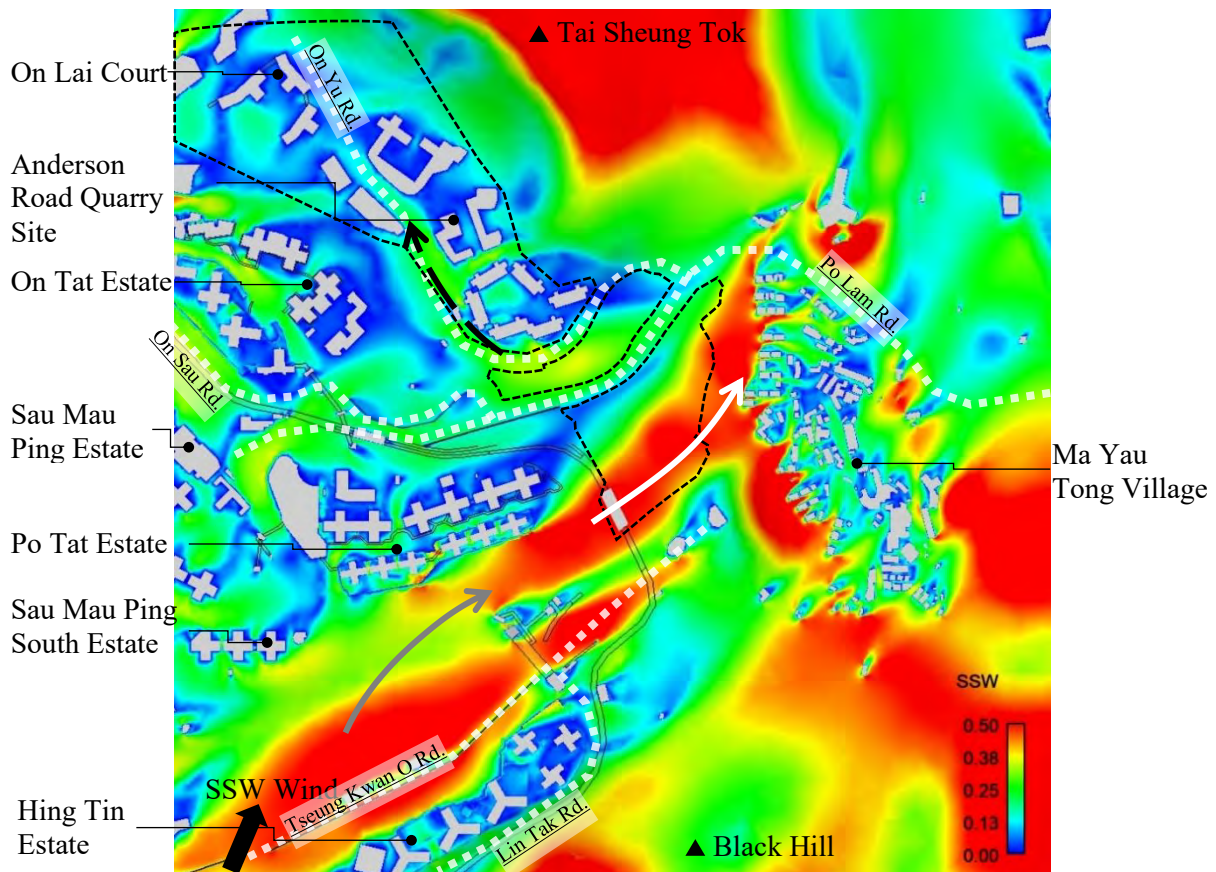


Figure 4.3.17 Wind Environment under SSW Wind under Baseline Scheme

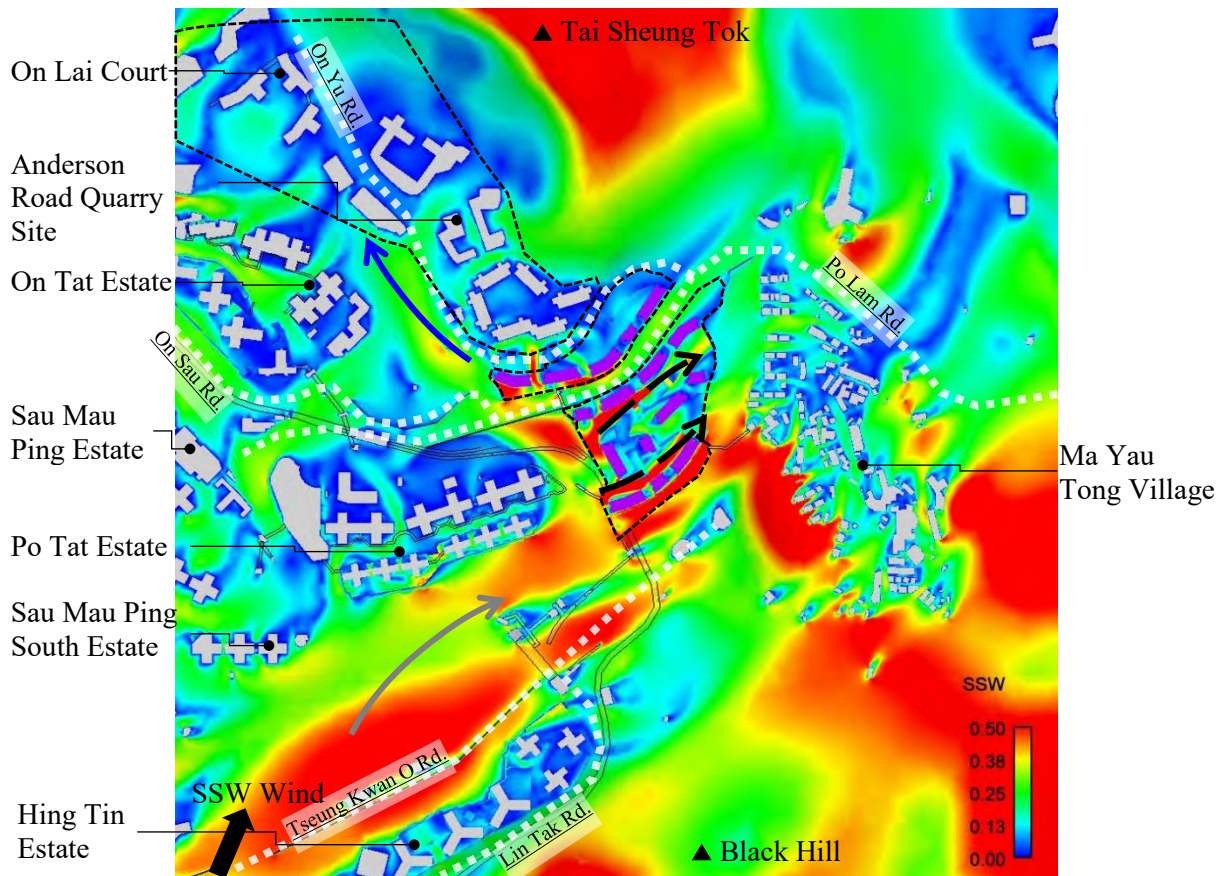


Figure 4.3.18 Wind Environment under SSW Wind under Indicative Development Scheme

H. SW/WSW Wind

- 4.3.61 The occurrence of SW wind is 6.7% under annual condition and 15.2% under summer condition. The occurrence of WSW wind is 3.9% under annual condition and 9.3% under summer condition. The wind performance under SW and WSW winds are similar apart from some difference in localized area. Hence, they would be discussed together under this section. The wind performance of Baseline and Indicative Development Schemes under SW and WSW wind are presented in Figure 4.3.19 to Figure 4.3.22.
- 4.3.62 The Tseung Kwan O Road with the adjacent “GB” Zone would act as the main wind entrance for SSW to reach the Application Site, illustrate with grey arrows in Figure 4.3.19 to Figure 4.3.22. The densely build-up residential areas in Sau Mau Ping, Po Tat Estate, On Tat Estate, Anderson Road Quarry Site and Lam Tin are located at windward side, which would dominate the wind environment in the area. With the height variation in the surrounding area, downwash effect would be induced at some facades and ventilate the nearby area, such as On Tat Estate, R2-9, R2-10 to the immediate north of the Application Site.
- 4.3.63 Under Baseline Scheme, with the openness in Application Site, incoming wind would penetrate across the Application Site, illustrate with white arrows in Figure 4.3.19.
- 4.3.64 Under Indicative Development Scheme, with the Po Tat Estate located at upwind location of Main Site, there would be limited downwash effect induced at the façade of Main Site. While some high-level wind would be captured by tower in The Northern Site and ventilate along Po Lam Road subsequently.
- 4.3.65 In general, the Indicative Development Scheme would be less permeable as compared with the Baseline Scheme, the air paths aligned with NE-SW would be effective to promote wind penetration within and across the Application Site, illustrated by black dashed arrow in Figure 4.3.20.
- 4.3.66 Nevertheless, with the reduced permeability, calm wind environment would be observed both at the upwind and downwind location. The accumulative wind shadow induced by Po Tat Estate and the Application Site would result in relatively calm wind environment in the norther part of Ma Yau Tong Village and the “O” and “OU” Zone near On Tat Estate.
- 4.3.67 Under Revised Indicative Development Scheme, the wider air path (Air Path #1 in Figure 2.3.13) and lowered level of podium at Airpath #1, aligned with NE-SW direction would further facilitate wind penetration across the Application Site. The wind environment at the podium level would be higher as compared with other location within the Assessment Area as compared with the Indicative Development Scheme.
- 4.3.68 Moreover, the high-rise towers of the Application Site would shield the incoming wind for the leeward side. Wind shadow area would be observed at Ma Yau Tong Village and Haven of Hope Sunnyside School. The wider air path would slightly alleviate the wind shadow at Ma Yau Tong Village and Haven of Hope Sunnyside School.

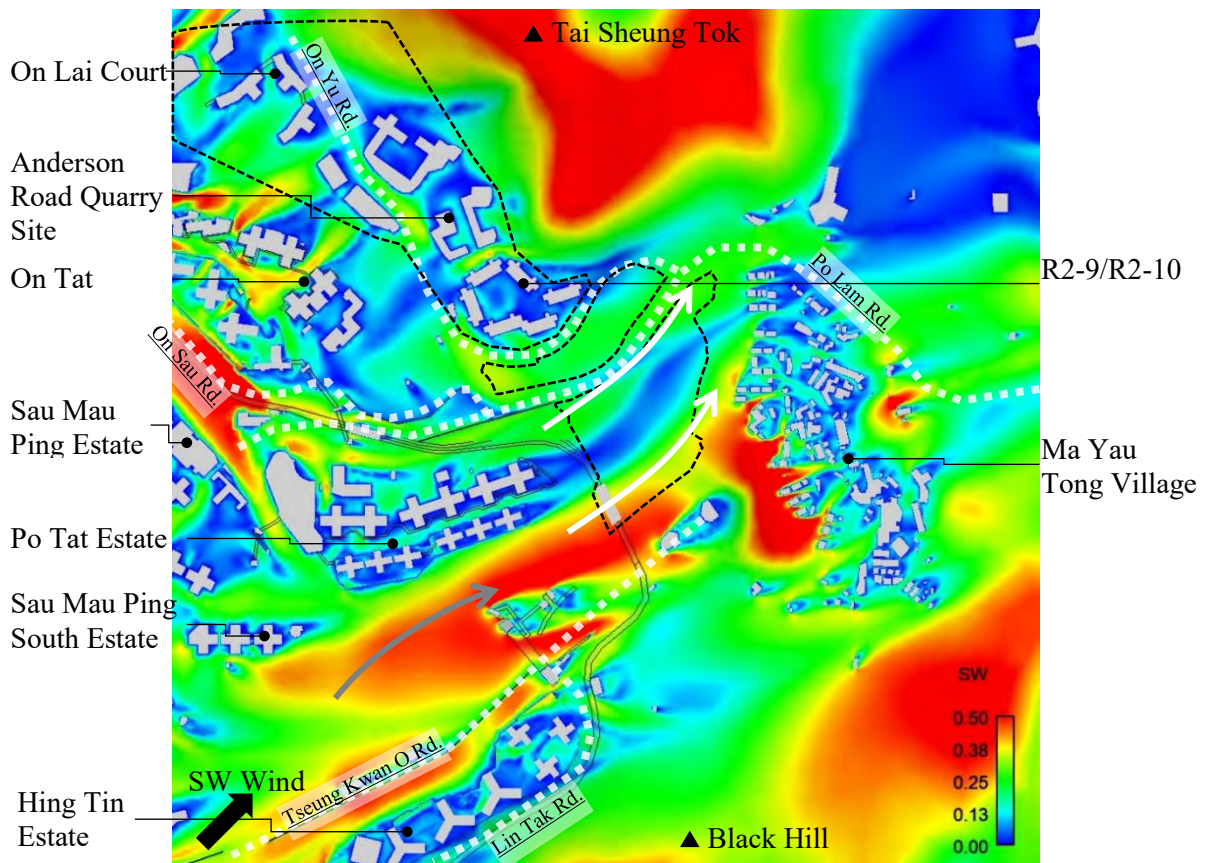


Figure 4.3.19 Wind Environment under SW Wind under Baseline Scheme

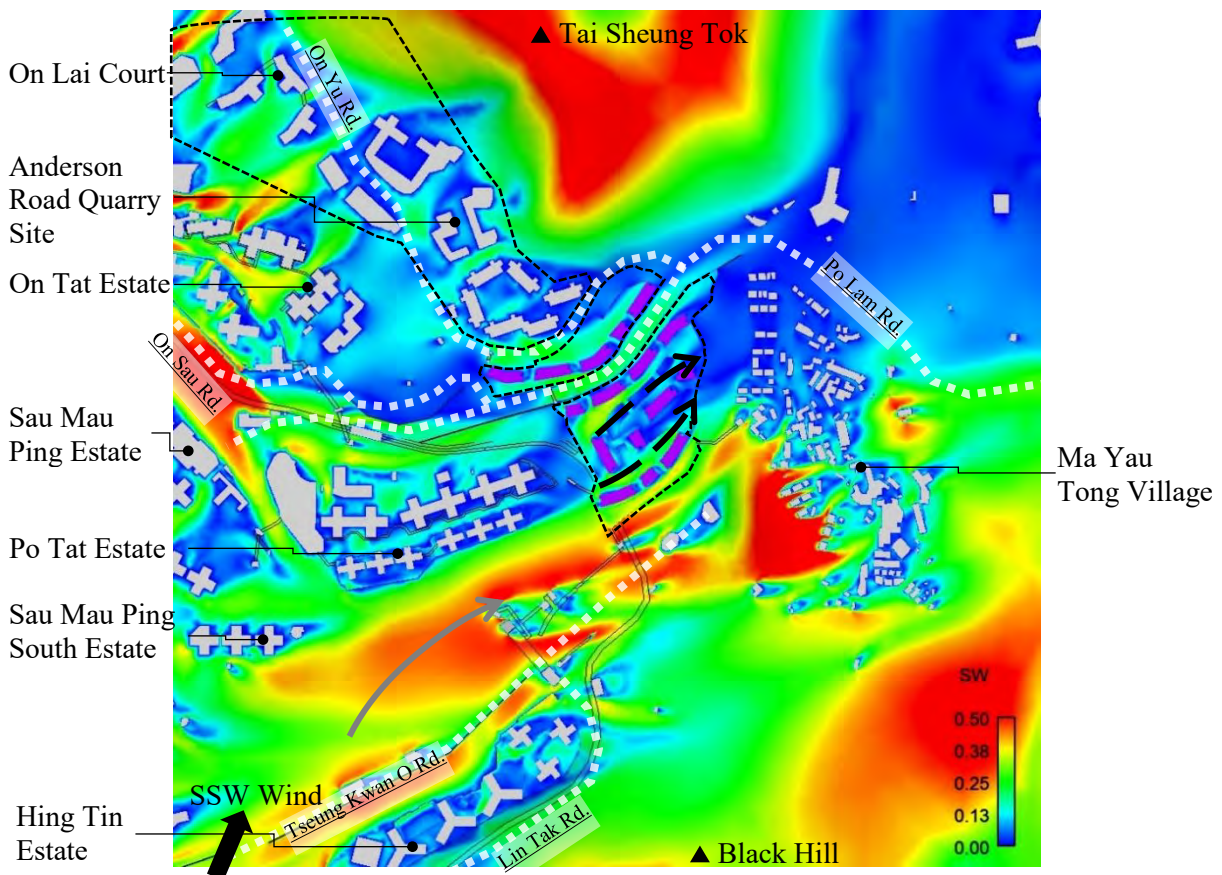


Figure 4.3.20 Wind Environment under SW Wind under Indicative Development Scheme

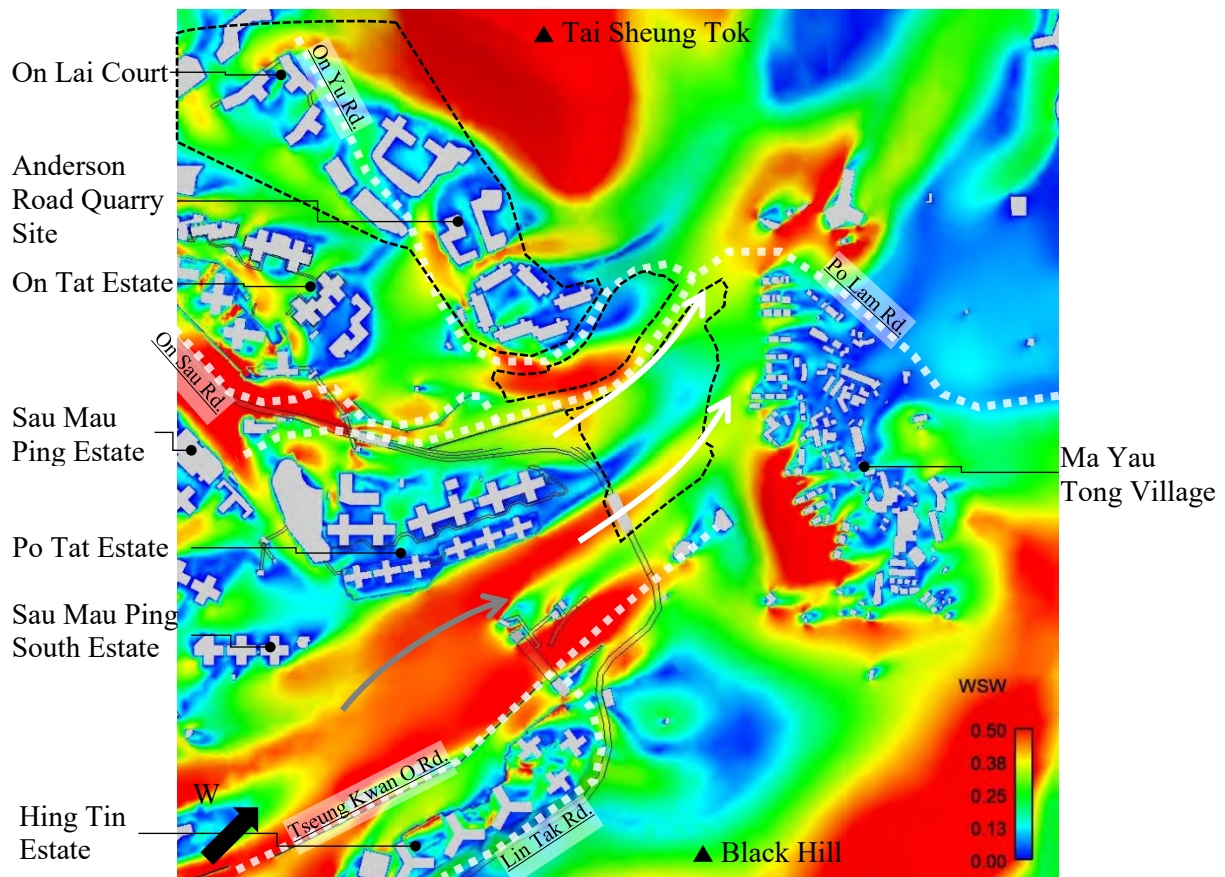


Figure 4.3.21 Wind Environment under WSW Wind under Baseline Scheme

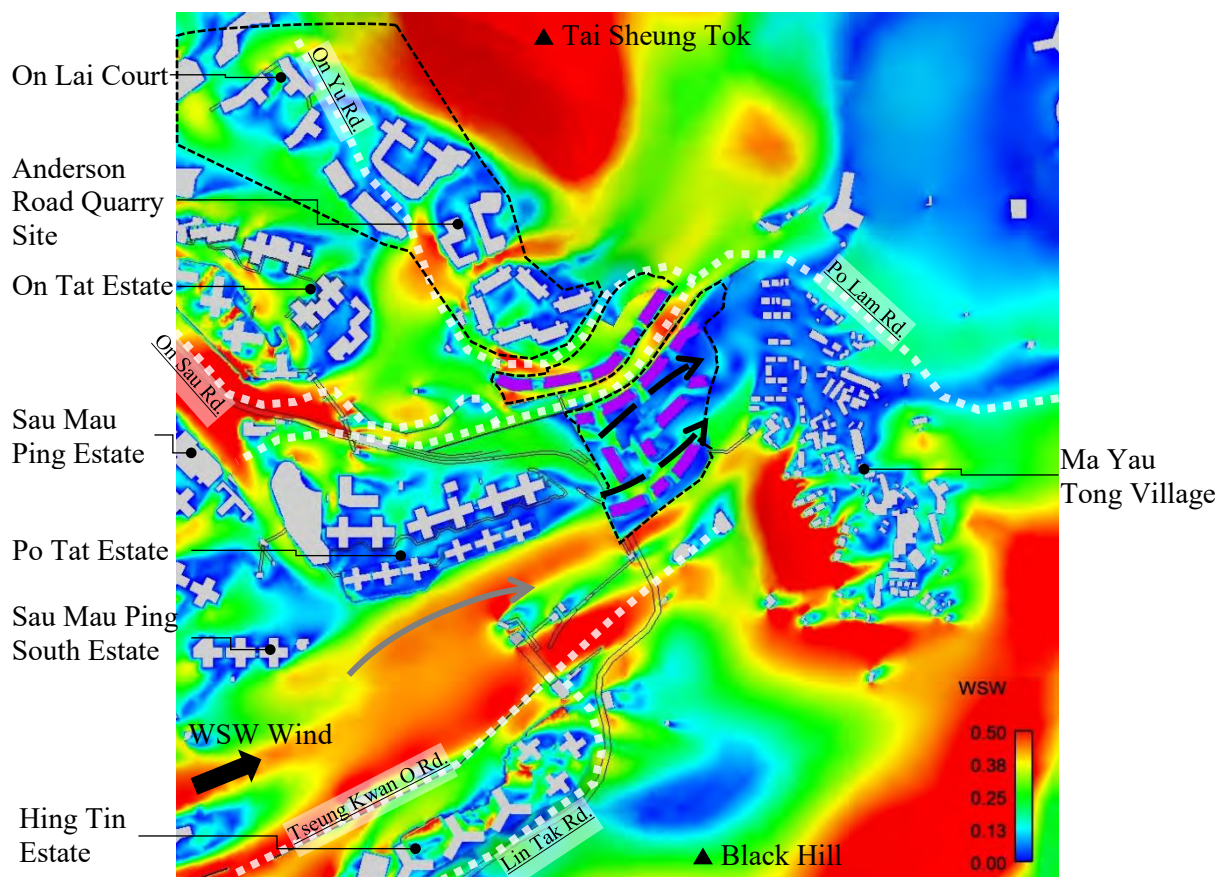


Figure 4.3.22 Wind Environment under WSW Wind under Indicative Development Scheme

4.4 Focus Area

- 4.4.1 The average Velocity Ratios of all test points are determined and extracted. As shown in Figure 4.4.1 and Figure 4.4.2, a total of 24 focus areas were identified within the Assessment Area and 6 nos. focus areas were identified within the Application Site.
- 4.4.2 The associated test points and averaged VR for focus areas are tabulated in Table 4.4.1 and Table 4.4.2 respectively.
- 4.4.3 Under annual condition, majority of the Focus Areas achieve lower VR due to the lower permeability by residential towers atop the depot, such as Anderson Road, Wilson Trail, Tsui Lam Road, Po Lam Road, On Sau Road, On Chui Street, On Kin Road, On Yu Road, Ma Yau Tong Village, Haven of Hope Sunnyside School, S.K.H. St. John's Tsang Shui Tim Primary School, On Tat Estate, On Sau Court, Po Leung Kuk Luk Hing Too Primary School, Site R2-9 & R2-10 (Residential), Sau Mau Ping Catholic Primary School, Po Tat Estate and Basketball Court (Salt Water Service Reservoir under).
- 4.4.4 The VR at the wind enhancement feature identified, including Air Path #1 - #4, all achieve a better VR as compared with the SVR and LVR, which indicated that the wind enhancement features are efficient in promoting air penetration and minimize the ventilation impact from the Indicative Development Scheme.
- 4.4.5 Under summer condition, majority of the Focus Areas achieve lower VR due to the lower permeability by residential towers atop the depot, such as Anderson Road, Wilson Trail, Po Lam Road, On Sau Road, On Chui Street, On Kin Road, On Yu Road, Ma Yau Tong Village, Haven of Hope Sunnyside School, S.K.H. St. John's Tsang Shui Tim Primary School, On Tat Estate, On Sau Court, Po Leung Kuk Luk Hing Too Primary School and Site R2-9 & R2-10 (Residential).
- 4.4.6 The VR at the wind enhancement feature identified, including Air Path #1 - #4, all achieve a better VR as compared with the SVR and LVR, which indicated that the wind enhancement features are efficient in promoting air penetration and minimize the ventilation impact from the Indicative Development Scheme.

Table 4.4.1 Focus Areas and Corresponding Test Points

	Focus Areas	Test Points
1	Lin Tak Road	O1-O14
2	Tseung Kwan O Road	O15-O29
3	Sau Mau Ping Road	O30-O42
4	Anderson Road	O43-O47
5	Wilson Trail	O48-O51
6	Tsui Lam Road	O52-O72
7	Po Lam Road	O73-O119
8	On Sau Road	O120-O135
9	On Chui Street	O136-O141
10	On Kin Road	O142-O145
11	On Yu Road	O146-O167

	Focus Areas	Test Points
12	Ma Yau Tong Village	O168-O250
13	Haven of Hope Sunnyside School	O251-O255
14	S.K.H. St. John's Tsang Shui Tim Primary School	O256-O260
15	On Tat Estate	O261-O278
16	On Sau Court	O279-O285
17	Shau Kei Wan East Government Secondary School	O286-O289
18	Po Leung Kuk Luk Hing Too Primary School	O290-O294
19	Site R2-9 & R2-10 (Residential)	O295-O301
20	Sau Mau Ping Catholic Primary School	O302-O308
21	Po Tat Estate	O309-O337
22	Basketball Court (Salt Water Service Reservoir under)	O338-O341
23	Hing Tin Estate	O342-O346
24	Hong Wah Court	O347-O355
25	Air Path #1	S20, S34, S36-S40
26	Air Path #2	S25-S30
27	Air Path #3	S30-S33, S35-S36
28	Air Path #4	P3, S2, S3, P23
29	Open Space within Main Site	S11-S20, S22-S26, S29, S33, S35-S40
30	Open Space within Northern Site	S1-S10
31	Perimeter of Main Site	P28-P64
32	Perimeter of Northern Site	P1-P27

Table 4.4.2 Focus Areas and Corresponding Test Points

	Focus Areas	Annual Average VR		Summer Average VR	
		Baseline	Proposed	Baseline	Proposed
1	Lin Tak Road	0.32	0.32	0.23	0.23
2	Tseung Kwan O Road	0.37	0.38	0.34	0.34
3	Sau Mau Ping Road	0.31	0.30	0.35	0.35
4	Anderson Road	0.28	0.20	0.28	0.19
5	Wilson Trail	0.43	0.41	0.24	0.22
6	Tsui Lam Road	0.41	0.38	0.22	0.21
7	Po Lam Road	0.38	0.30	0.26	0.22
8	On Sau Road	0.25	0.13	0.25	0.16
9	On Chui Street	0.22	0.15	0.22	0.16
10	On Kin Road	0.38	0.34	0.23	0.21
11	On Yu Road	0.33	0.28	0.26	0.17
12	Ma Yau Tong Village	0.24	0.22	0.19	0.16
13	Haven of Hope Sunnyside School	0.39	0.33	0.29	0.20

	Focus Areas	Annual Average VR		Summer Average VR	
		Baseline	Proposed	Baseline	Proposed
14	S.K.H. St. John's Tsang Shui Tim Primary School	0.13	0.09	0.09	0.07
15	On Tat Estate	0.16	0.13	0.17	0.14
16	On Sau Court	0.19	0.17	0.12	0.09
17	Shau Kei Wan East Government Secondary School	0.18	0.19	0.11	0.13
18	Po Leung Kuk Luk Hing Too Primary School	0.28	0.26	0.17	0.14
19	Site R2-9 & R2-10 (Residential)	0.16	0.09	0.13	0.07
20	Sau Mau Ping Catholic Primary School	0.16	0.10	0.13	0.12
21	Po Tat Estate	0.17	0.12	0.14	0.13
22	Basketball Court (Salt Water Service Reservoir under)	0.33	0.27	0.24	0.24
23	Hing Tin Estate	0.15	0.14	0.13	0.13
24	Hong Wah Court	0.24	0.25	0.16	0.17
25	Air Path #1	/	0.44	/	0.30
26	Air Path #2	/	0.31	/	0.24
27	Air Path #3	/	0.37	/	0.24
28	Air Path #4	/	0.26	/	0.25
29	Open Space within Main Site	/	0.35	/	0.25
30	Open Space within Northern Site	/	0.19	/	0.17
31	Perimeter of Main Site	0.28	0.35	0.25	0.27
32	Perimeter of Northern Site	0.36	0.31	0.28	0.22

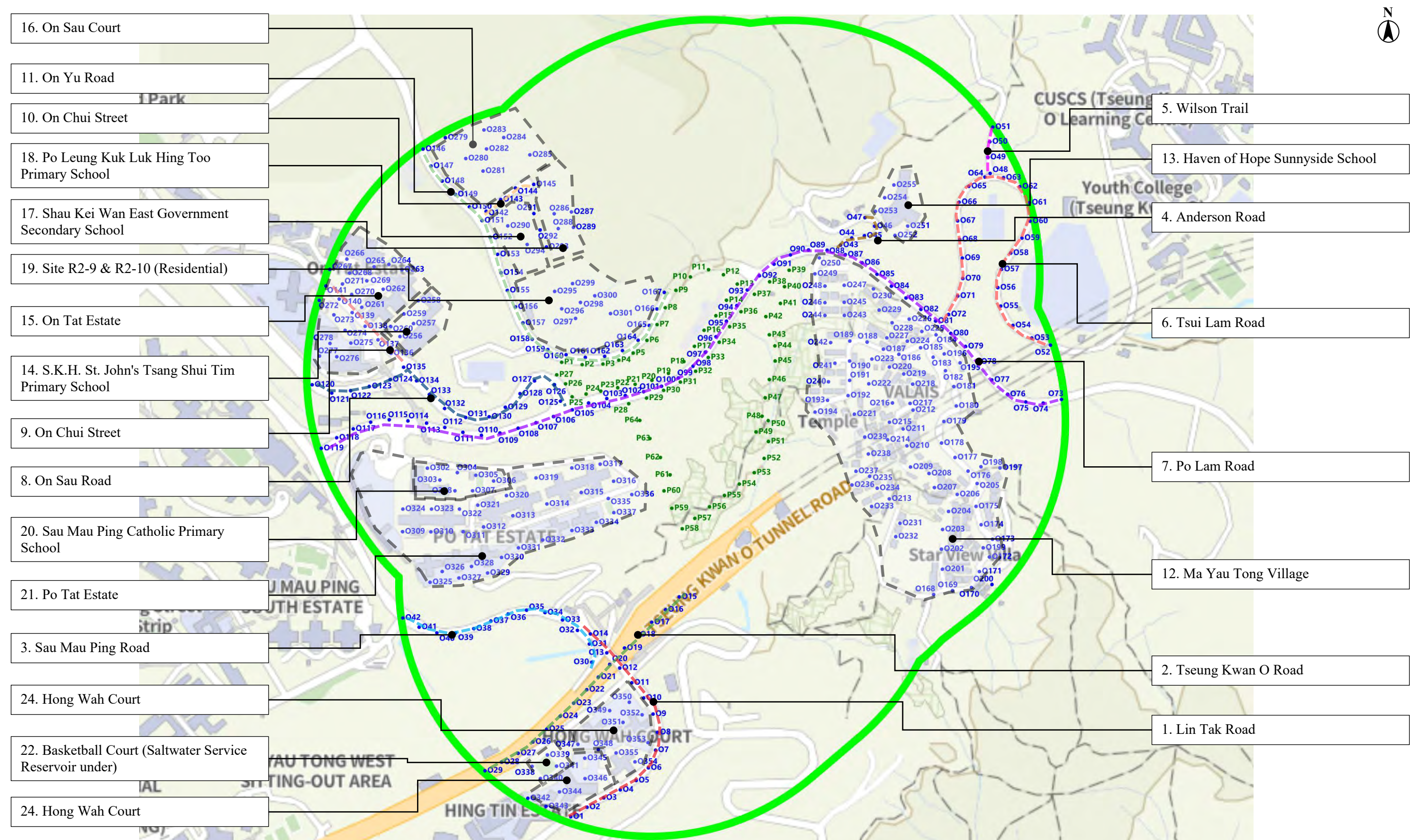


Figure 4.4.1 Location of Focus Areas within Assessment Area

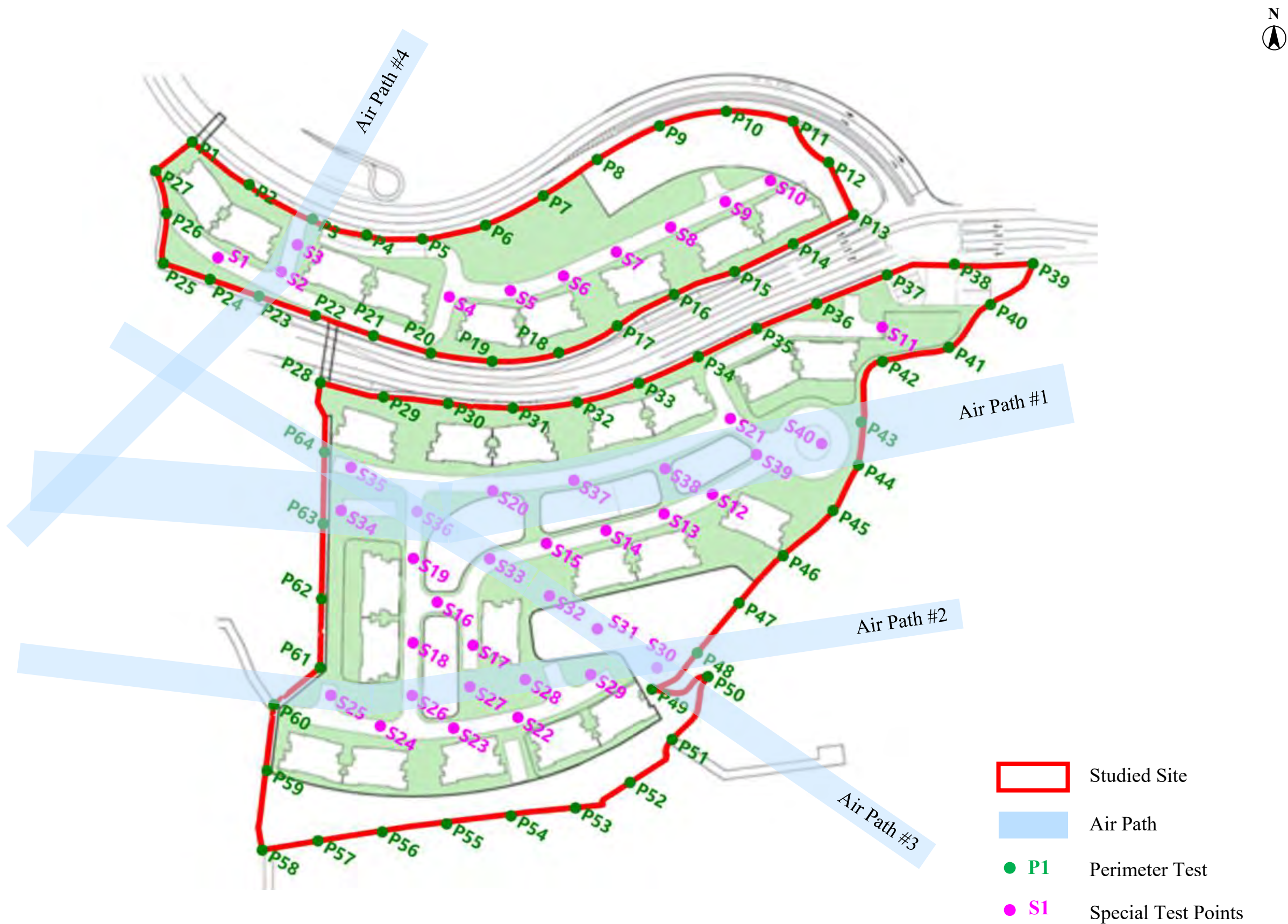


Figure 4.4.2 Location of Focus Areas within Application Site

5. Conclusion

5.1 Overview

- 5.1.1 An Air Ventilation Assessment (AVA) – Initial Study was conducted to assess the ventilation performance of Baseline Scheme and Indicative Development Scheme in accordance to *the AVA Technical Circular*.
- 5.1.2 Three schemes were assessed, namely Baseline Scheme, Indicative Development Scheme and Revised Indicative Development Scheme. Baseline Scheme and Indicative Development Scheme were assessed using Computational Fluid Dynamics (CFD) techniques. A series CFD simulations using Realizable k- ϵ turbulence model were performed under annual and summer wind conditions with reference to *the AVA Technical Circular*. For annual wind condition, NNE, NE, ENE, E, ESE, SE, SSW, SW were selected which gives total wind frequency of 78.3% over a year while E, ESE, SE, SSE, S, SSW, SW and WSW were selected for summer condition, which gives total wind frequency of 78.7%. A qualitative analysis has been used to evaluate the difference in ventilation performance of Revised Indicative Development Scheme as compared with Indicative Development Scheme.
- 5.1.3 The Velocity Ratio (VR) as proposed by *the AVA Technical Circular* was employed to assess the ventilation performance under different schemes and its impact to the surroundings. With reference to *the AVA Technical Circular*, a total of 64 perimeter test points 355 overall test points were allocated to assess the overall ventilation performance in the Assessment Area. Additional 40 special points were allocated to assess the wind environment at the air paths and internal road area within the Application Site.
- 5.1.4 Under annual condition, as compared with Baseline Scheme, Indicative Development Scheme achieved a higher SVR (0.31 vs. 0.34) and lower LVR (0.28 vs. 0.25). The result indicated that Indicative Development Scheme would achieve a better ventilation performance along the Site Boundary while a relatively calmer wind environment in the surrounding area, as compared with Baseline Scheme.
- 5.1.5 Under summer condition, as compared with Baseline Scheme, Indicative Development Scheme achieved a similar SVR (0.26 vs. 0.25) and lower LVR (0.22 vs. 0.19). The result indicated that Indicative Development Scheme would achieve a similar ventilation performance along the Site Boundary while a calmer wind environment in the surrounding area, as compared with Baseline Scheme.
- 5.1.6 Under both annual and summer condition, the high-rise building atop the depot/podium would include downwash effect near the Application Site. The captured wind would subsequently enter the road networks nearby. The strong downwash effect from the Application Site would limit the incoming wind to travel further towards the leeward side. Hence, wind shadow and relatively calm wind environment would be observed at Anderson Road, Wilson Trail, Tsui Lam Road (annual condition only), Po Lam Road, On Sau Road, On Chui Street, On Kin Road, On Yu Road, Ma Yau Tong Village, Haven of Hope Sunnyside School, S.K.H. St. John's Tsang Shui Tim Primary School, On Tat Estate, On Sau Court, Po Leung Kuk Luk Hing Too Primary School, Site R2-9 & R2-10 (Residential), Sau Mau Ping Catholic Primary School (annual only) and Po Tat Estate (annual only), Basketball

Court (annual only). For rest of the focus area in surrounding area, similar ventilation performance has been achieved, including Lin Tak Road, Tseung Kwan O Road, Sau Mau Ping Road, Tsui Lam Road (summer only), Shau Kei Wan East Government Secondary School (slightly better under summer condition), Sau Mau Ping Catholic Primary School (summer only), Po Tat Estate (summer only), Basketball Court (summer only), Hing Tin Estate, Wong Wah Court.

- 5.1.7 Nevertheless, within the Application Site, the incorporated wind enhancement features would be effective in facilitating wind penetration across the site, in particular under NE and SW quadrants winds. For other wind direction, the air paths and building separation enhance the permeability within the Site, which also facilitate air movement across the Application Site, result in good wind environment at the podium level within the Application Site and along the site boundary. There would be no significantly adverse ventilation impact induced by the Indicative Development Scheme.
- 5.1.8 In response to departmental comments and to reduce the ventilation impact to surrounding area, a Revised Indicative Development Scheme has been developed through widening Air Path #1 by 10m and lowering of podium level by 4m at Air Path #1, which allows more wind to penetrate at the podium level of Main Site towards the immediate west of the Application Site, and slightly enhance the ventilation performance at Po Tat Estate and Sau Mau Ping Catholic Primary School under NE quadrants in annual condition, and Ma Yau Tong Village and Haven of Hope Sunnyside School under SW quadrants in summer condition, as compared with Indicative Development Scheme.
- 5.1.9 Due to site constraints in consideration of noise reduction, view corridor, building ordinance requirements, additional measures to mitigate adverse air ventilation impacts in other areas (S.K.H. St. John's Tsang Shui Tim Primary, On Sau Court, and Sites R2-9 and R2-10) are not feasible. The permeability of Site will be considered during the detailed design stage to optimize the wind flow of surrounding environment.
- 5.1.10 In general, as the building separations, building height and other air paths generally remained similar as Indicative Development Scheme, there would be no significant changes to the overall ventilation performance under both Indicative Development Scheme and Revised Indicative Development Scheme.

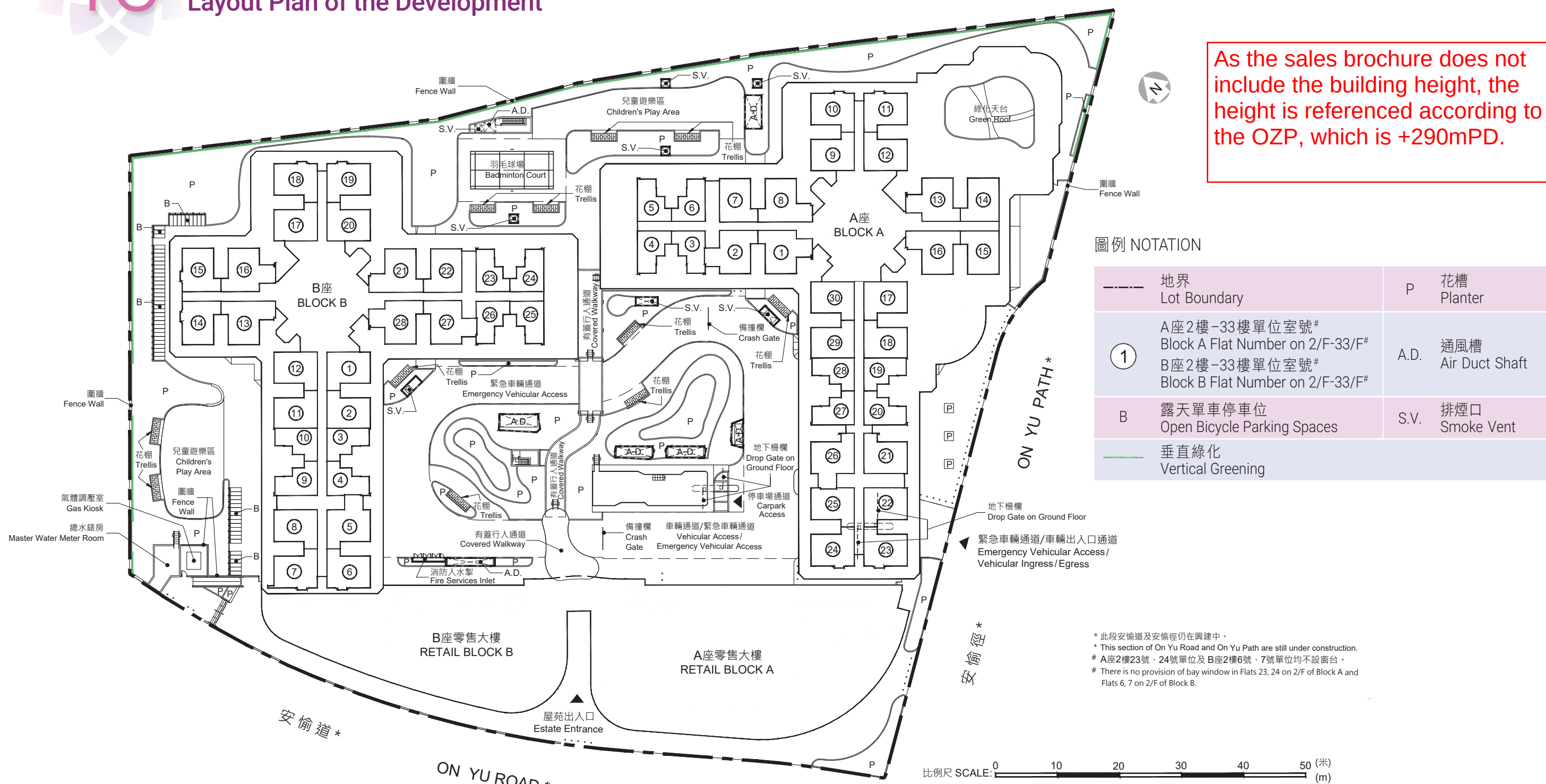
Appendix A

Planned Developments

1. On Sau Court

10 發展項目的布局圖

Layout Plan of the Development



由發展項目的委任建築師提供的該項目內的建築物或設施的預計落成日期:2025年5月31日

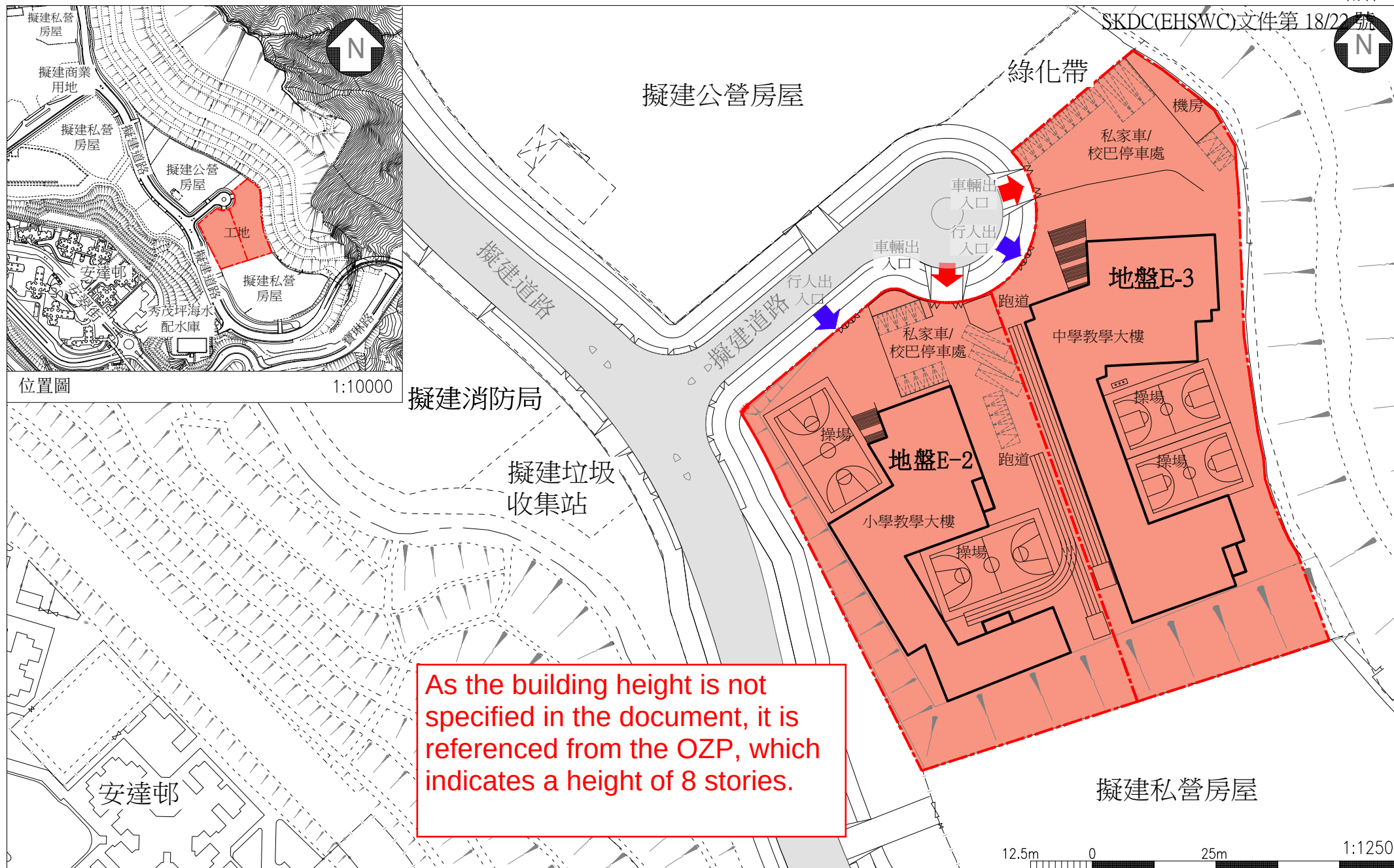
Estimated date of completion of the buildings or facilities within the Development as provided by the appointed architect for the Development: 31 May 2025

註：上述該項目內的建築物或設施的預計落成日期為有關建築物或設施的佔用許可證的預計發出日期。

Note: The estimated date of completion of the buildings or facilities within the Development is the estimated date for issue of Occupation Permit for the buildings or facilities concerned.

2. Shau Kei Wan East
Government Secondary
School

3. Po Leung Kuk Luk Hing Too
Primary School



As the building height is not specified in the document, it is referenced from the OZP, which indicates a height of 8 stories.

擬建校舍的位置及工地平面圖

安達臣道石礦場用地發展(地盤E-2)興建1所設有30間課室的小學
以及
安達臣道石礦場用地發展(地盤E-3)興建1所設有30間課室的中學

圖例:



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4. Site R2-9 & R2-10 (Residential)



Massing of Site R2-9 & R2-10

The building height is referenced to OZP, i.e., +250mPD and +275mPD.

5. Proposed Police Station

3.5. 休憩用地及園景設計大綱

Open Space and Landscape Design Framework

3.5.1. 除了建議城市設計圖外，研究亦制定了建議園景總綱圖，為研究地點休憩用地大綱及園景設計定下指引（圖 3.6）。主要休憩用地及園景方案的詳情如下：

Apart from the Recommended Urban Design Plan, a Recommended Landscape Master Plan is prepared to guide the open space framework and landscape design for the Study Site (Figure 3.6). Key open space and landscape proposals are detailed below:

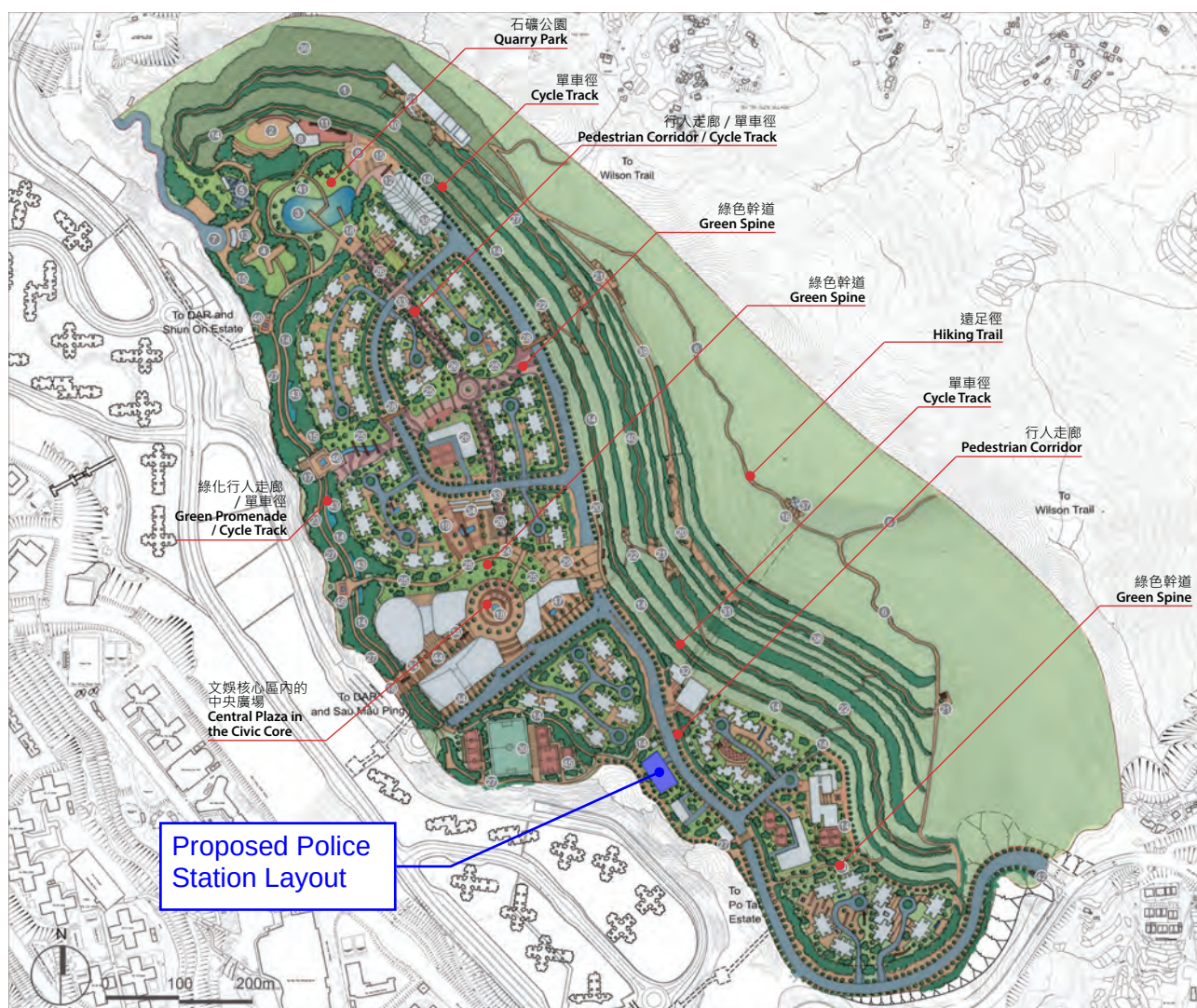


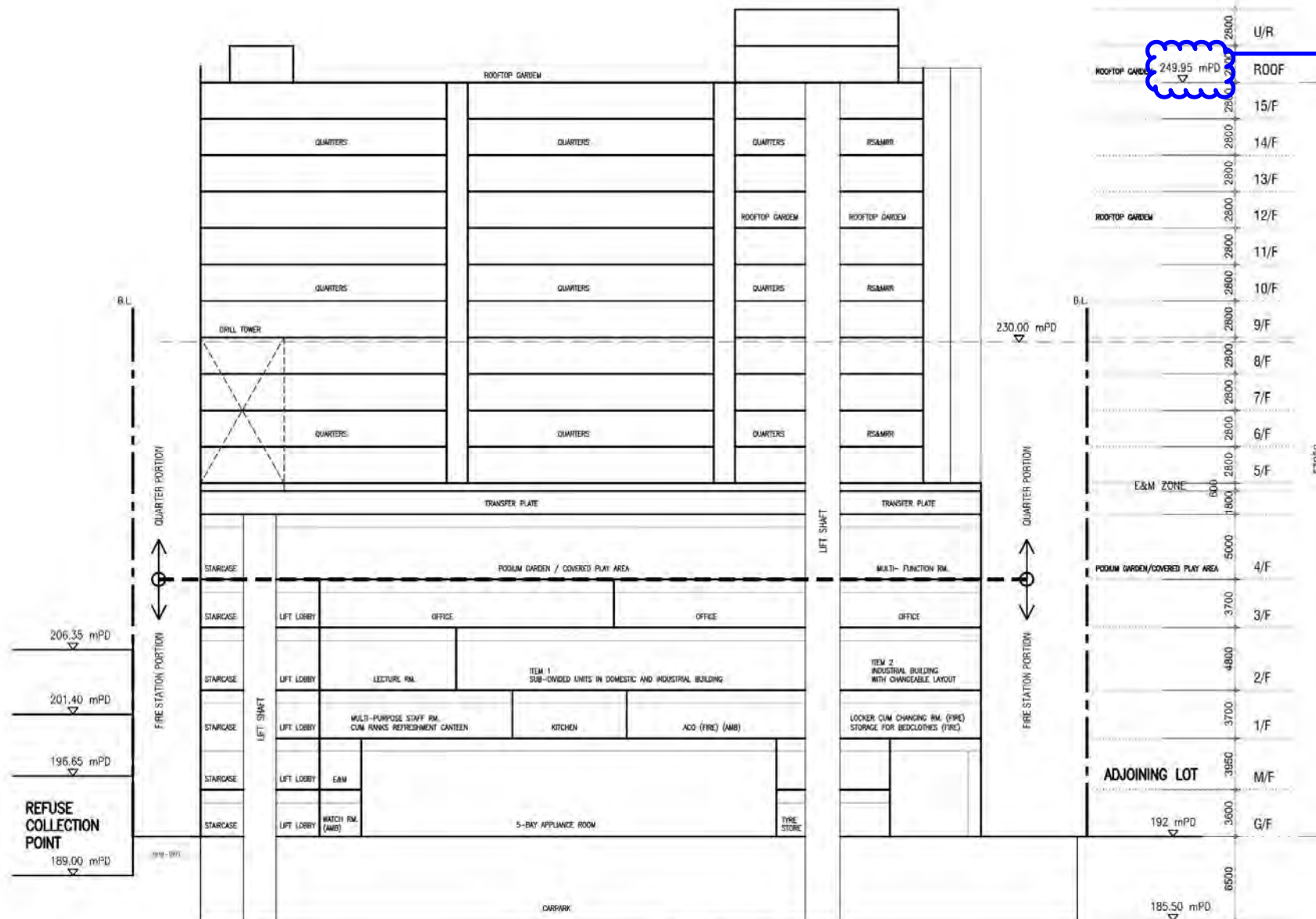
圖 3.6: 建議園景總綱圖

Figure 3.6: Recommended Landscape Master Plan

- **石礦公園** – 石礦公園位於研究地點沿西南邊界及其西北面的部分，會被設計為區域性公園。公園北部會提供一些區域性體育設施，包括攀石中心及石礦展覽 / 資源中心，亦會提供大型草坪、康樂休憩人工湖及一些露天表演場地。並建議包括緩跑徑、單車徑和可連接至大上托的遠足徑。公園南部沿平台邊緣會設立綠色走廊，毗鄰安達臣道發展，同時作為研究地點與安點、安達臣道發展及秀茂坪周邊地區的居民提供一

As the building height is not specified in the document, it is referenced according to the OZP, which indicates a height of +230mPD.

6. Proposed Fire Station-cum-Ambulance Depot and Departmental Quarters



SECTION A - A

Proposed Fire Station Cum Ambulance Depot With Departmental Quarters (FOR S16 APPLICATION)

Anderson Road

MLA
ARCHITECTS (HK) LTD
馬景濤建築師事務所 (馬) 建築師

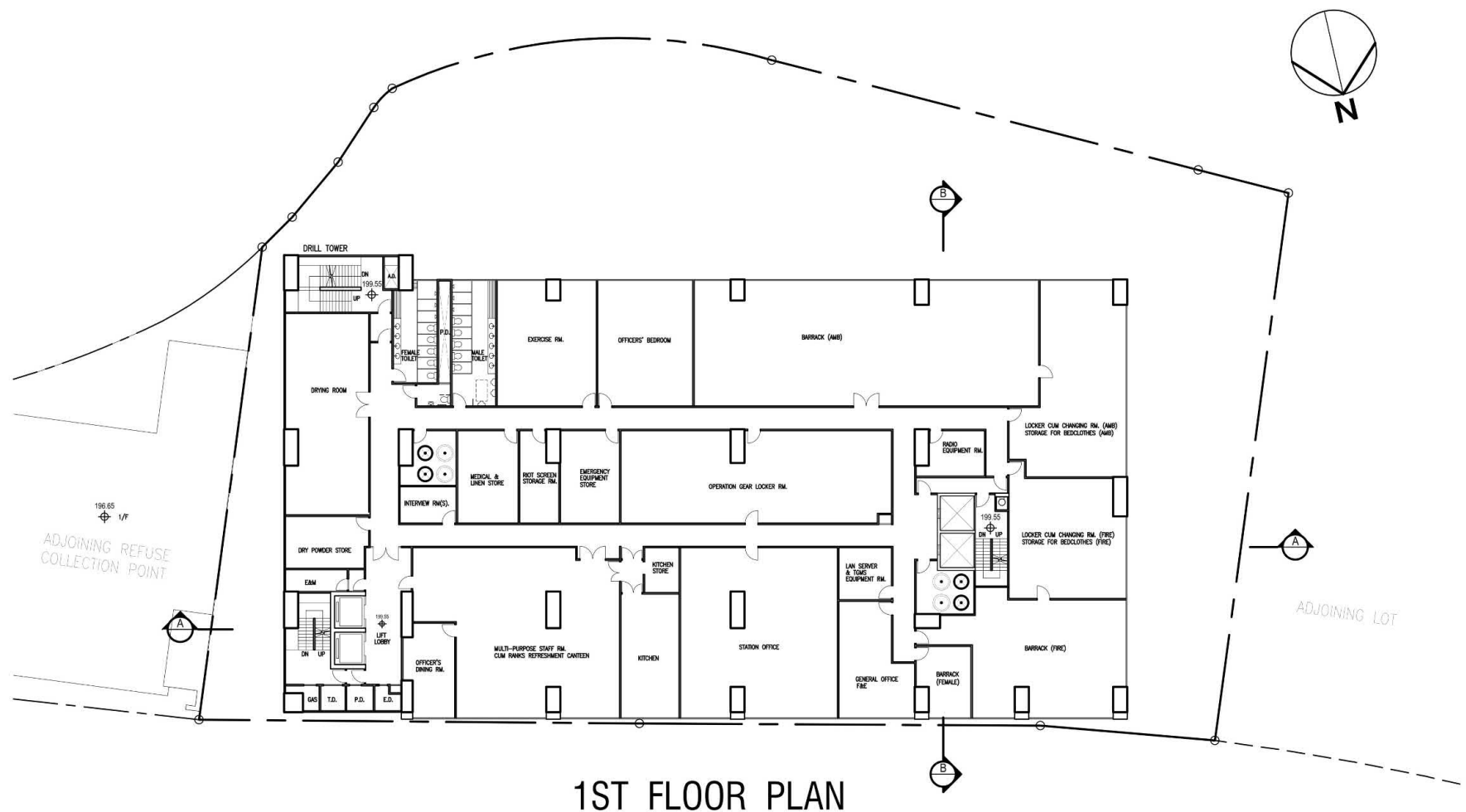
SK-09-11 (1:300)
Date: 11-10-2023

馬景濤

參考編號
REFERENCE No.
A/K14/827

繪圖
DRAWING
A - 10

(資料來源：由申請人提交)
(SOURCE : SUBMITTED BY THE APPLICANT)



Proposed Fire Station Cum Ambulance Depot With Departmental Quarters (FOR S16 APPLICATION)

Anderson Road

MLA
ARCHITECTS (HK) LTD
馬理達建築師事務所 (香港) 有限公司

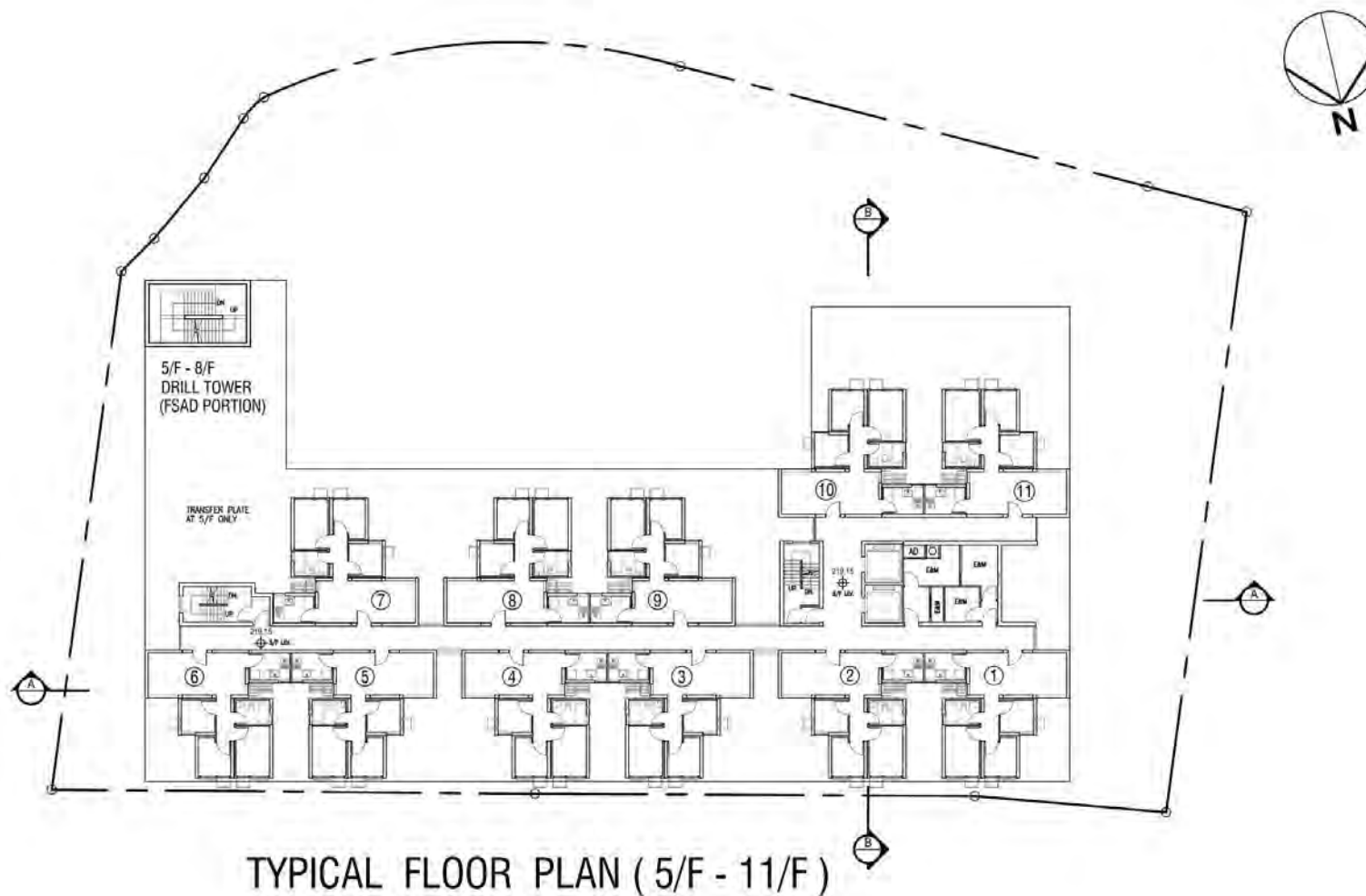
SK-09-04 (1:300)
Date: 11-08-2023

馬理達

(資料來源：由申請人提交)
(SOURCE : SUBMITTED BY THE APPLICANT)

參考編號
REFERENCE No.
A/K14/827

繪圖
DRAWING
A - 4



Proposed Fire Station Cum Ambulance Depot With Departmental Quarters (FOR S16 APPLICATION)

Anderson Road

MLA
ARCHITECTS (HK) LTD
馬梁建築師事務所(香港)有限公司

SK-09-08 (4-300)
Date: 11-08-2023

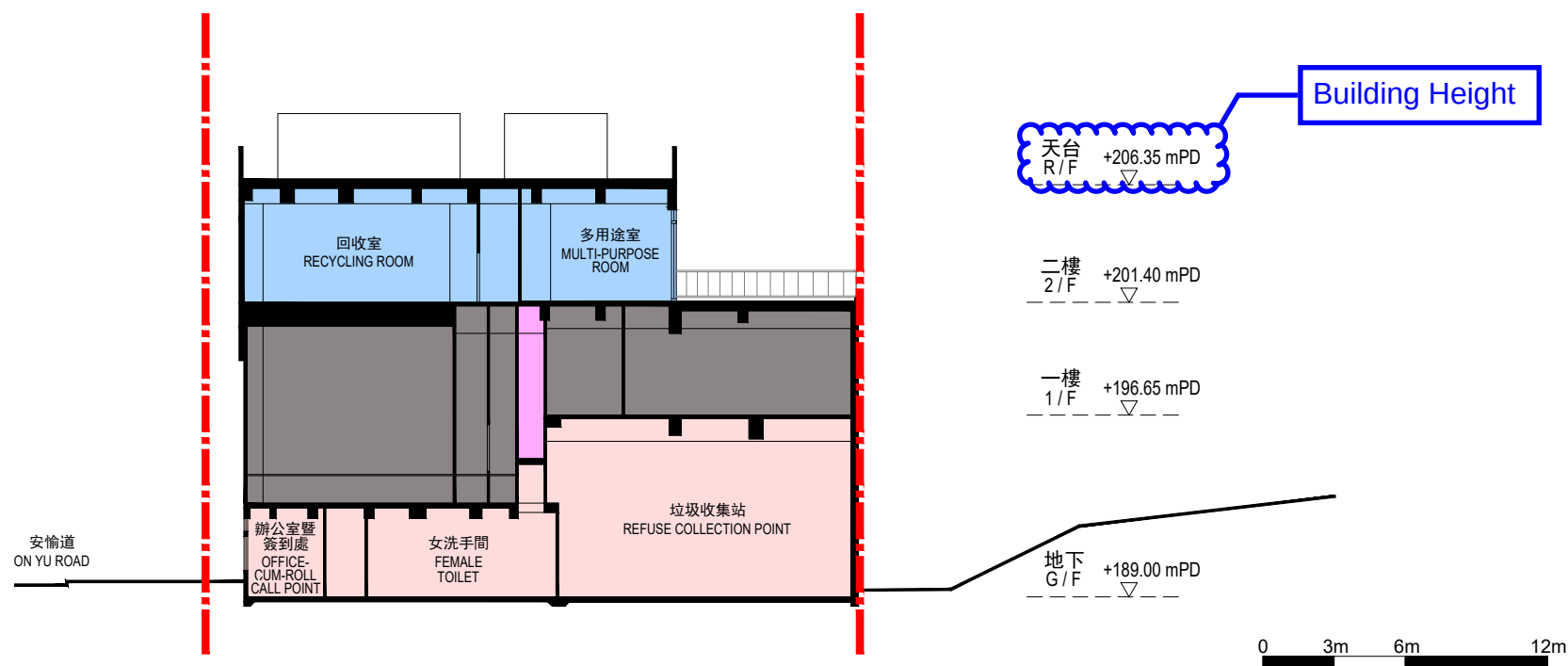
馬梁

(資料來源：由申請人提交)
(SOURCE : SUBMITTED BY THE APPLICANT)

參考編號
REFERENCE No.
A/K14/827

繪圖
DRAWING
A - 8

7. Proposed Refuse Collection Point and Recycling Store

圖例
LEGEND

—— 工地界線
SITE BOUNDARY

食物環境衛生署(食環署)垃圾收集站範圍
FOOD AND ENVIRONMENTAL HYGIENE DEPARTMENT (FEHD)
REFUSE COLLECTION POINT AREA

環保署/食環署共用地方
COMMON AREA FOR EPD / FEHD

環境保護署(環保署)回收便利點範圍
ENVIRONMENTAL PROTECTION DEPARTMENT (EPD)
RECYCLING STORE AREA

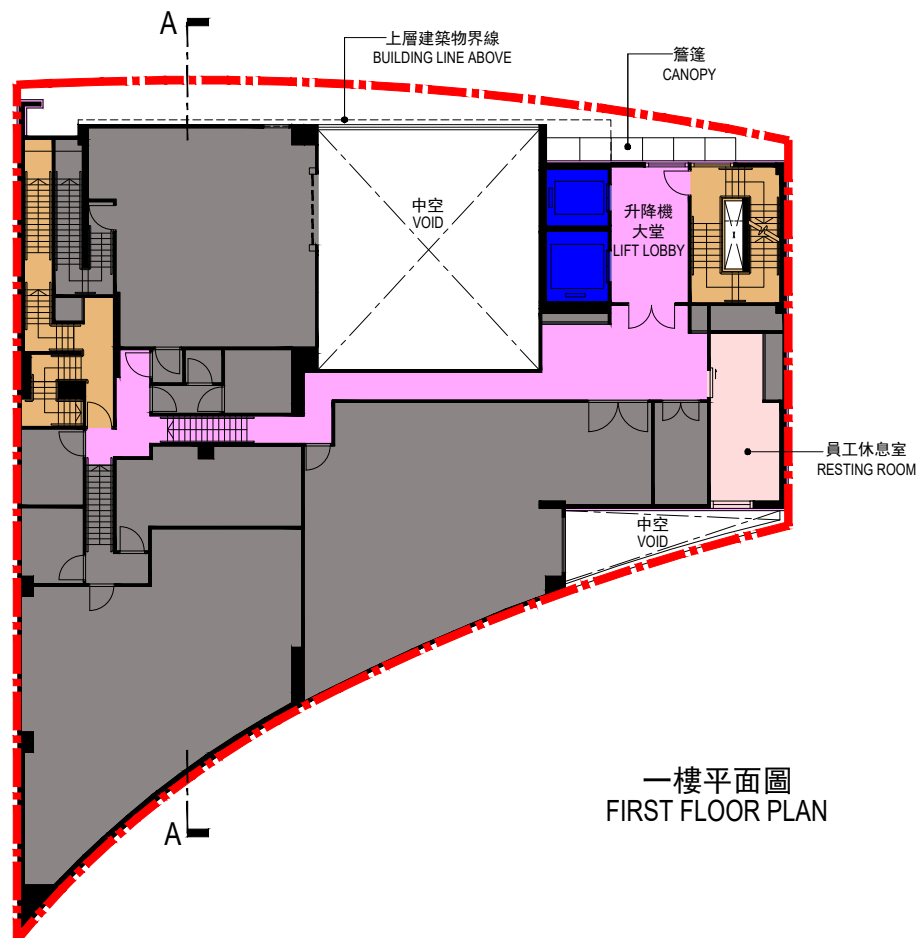
機房
PLANT ROOM

剖面圖 A-A
SECTION A-A

7NR
西貢安達臣道石礦場用地發展(地盤G5)垃圾收集站及回收便利點
REFUSE COLLECTION POINT AND RECYCLING STORE AT SITE G5,
DEVELOPMENT OF ANDERSON ROAD QUARRY SITE, SAI KUNG



ARCHITECTURAL
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DEPARTMENT 建築署



0 3m 6m 12m

圖例 LEGEND	工地界線 SITE BOUNDARY	垂直綠化 VERTICAL GREENING	暢通易達洗手間 ACCESSIBLE TOILET	食物環境衛生署(食環署)垃圾收集站範圍 FOOD AND ENVIRONMENTAL HYGIENE DEPARTMENT (FEHD) REFUSE COLLECTION POINT AREA	環境保護署(環保署)回收便利點範圍 ENVIRONMENTAL PROTECTION DEPARTMENT (EPD) RECYCLING STORE AREA
	無障礙通道 BARRIER-FREE ACCESS	綠化範圍 LANDSCAPED AREA	暢通易達升降機 ACCESSIBLE LIFT	環保署/食環署共用地方 COMMON AREA FOR EPD / FEHD	逃生樓梯 MEANS OF ESCAPE STAIRCASE 機房 PLANT ROOM

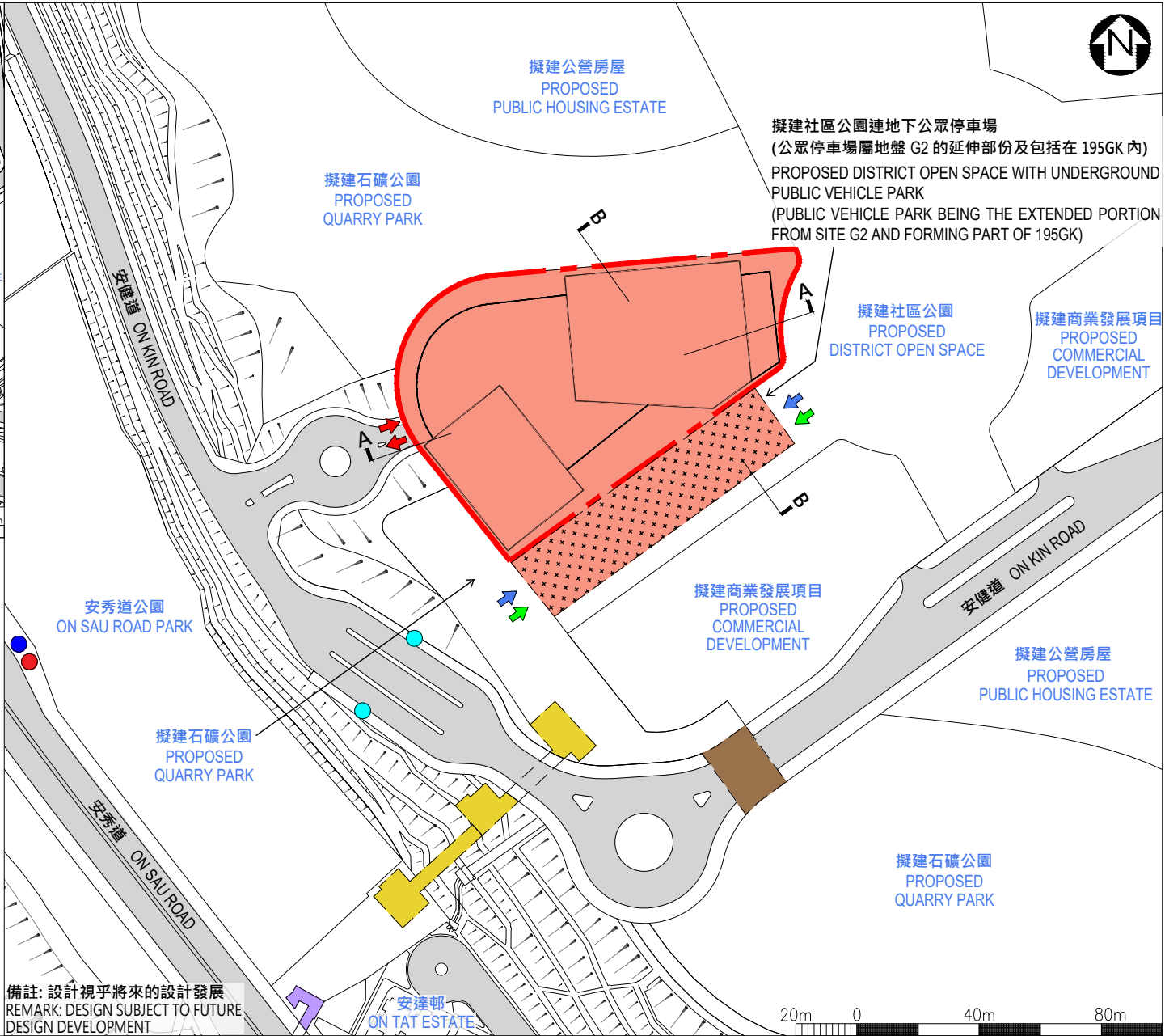
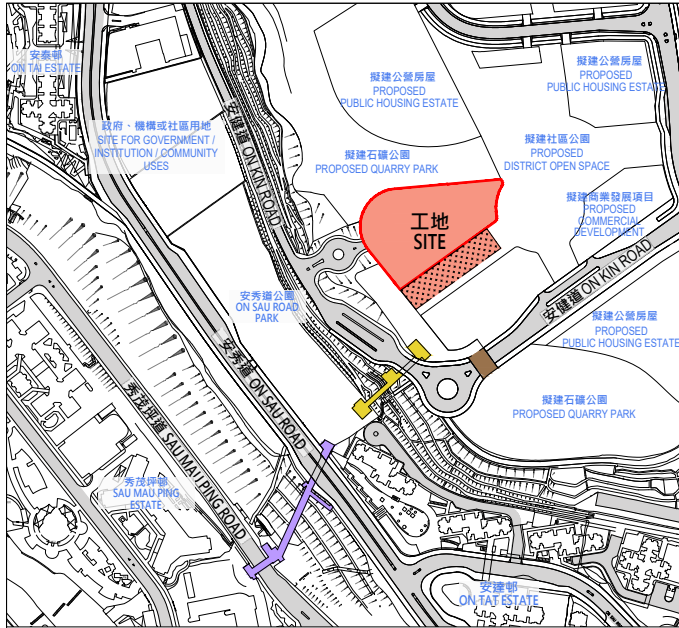
一樓及二樓平面圖
FIRST FLOOR AND
SECOND FLOOR PLANS

7NR
西貢安達臣道石礦場用地發展(地盤G5)垃圾收集站及回收便利點
REFUSE COLLECTION POINT AND RECYCLING STORE AT SITE G5,
DEVELOPMENT OF ANDERSON ROAD QUARRY SITE, SAI KUNG



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署

8. Permitted Joint-user Complex



備註：設計視乎未來的設計發展
REMARK: DESIGN SUBJECT TO FUTURE DESIGN DEVELOPMENT

位置圖 LOCATION PLAN

圖例 LEGEND

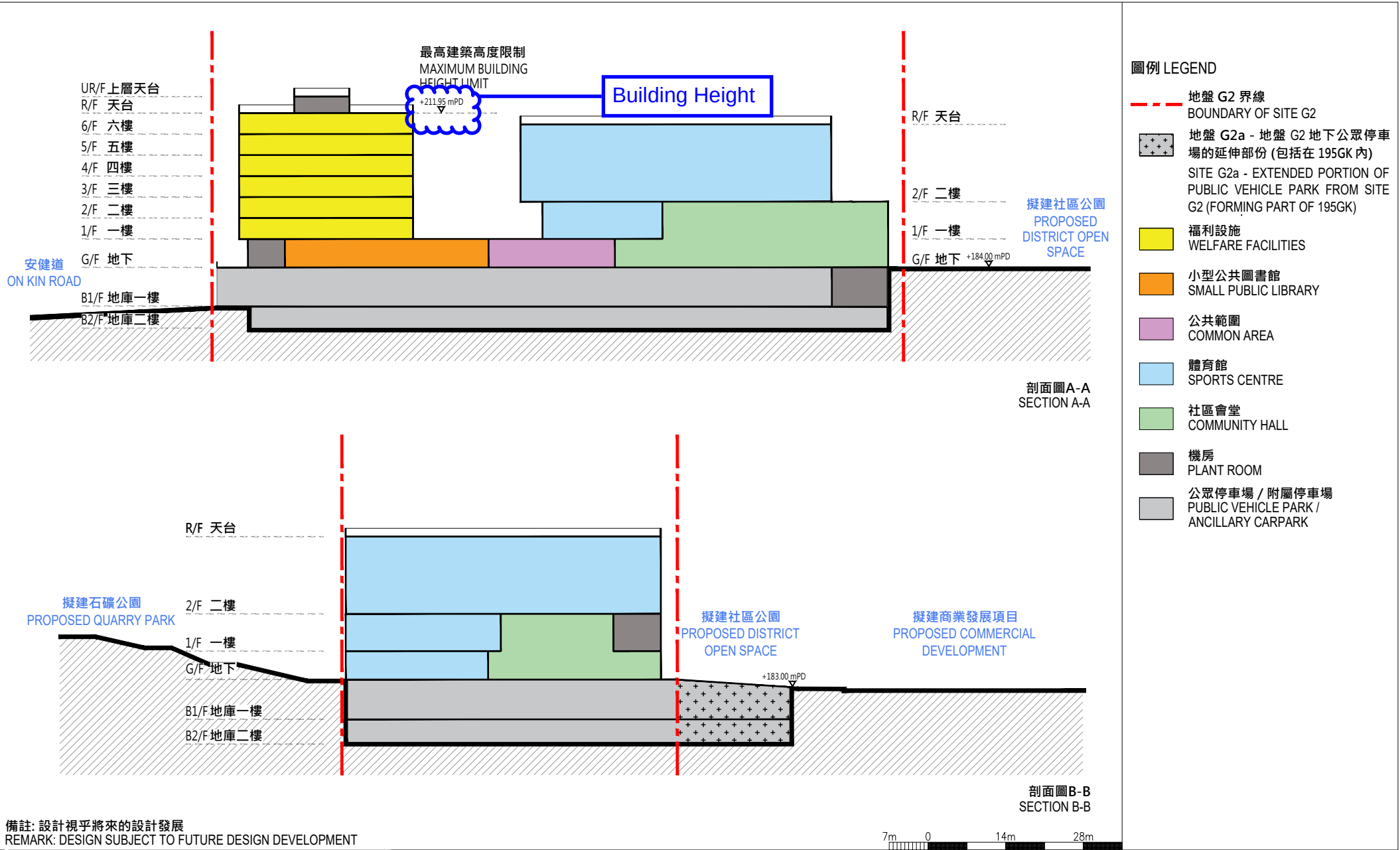
- 地盤 G2 界線
BOUNDARY OF SITE G2
- 地盤 G2a
SITE G2a
- ↑ 車輛出入口
VEHICULAR INGRESS / EGRESS
- ↑ 行人出入口
PEDESTRIAN ENTRANCE / EXIT
- ↑ 無障礙出入口
BARRIER-FREE ENTRANCE / EXIT
- 現有行人天橋 / 升降機 / 隧道
EXISTING FOOTBRIDGE / LIFT TOWER / SUBWAY
- 擬建行人天橋 / 升降機 / 隧道
PROPOSED FOOTBRIDGE / LIFT TOWER / SUBWAY
- 擬建園景美化高架行人道
PROPOSED LANDSCAPED ELEVATED WALKWAY
- 現有小巴士
EXISTING MINIBUS STOP
- 現有巴士站
EXISTING BUS STOP
- 擬建巴士站
PROPOSED BUS STOP

工地平面圖
SITE PLAN

195GK
安達臣道石礦場(地盤G2)聯用大樓
JOINT-USER COMPLEX AT SITE G2, ANDERSON ROAD QUARRY



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署



剖面圖
SECTIONS

195GK
安達臣道石礦場(地盤G2)聯用大樓
JOINT-USER COMPLEX AT SITE G2, ANDERSON ROAD QUARRY



ARCHITECTURAL
SERVICES
DEPARTMENT 建築署

9. Proposed Commercial Development – 1

3.5. 休憩用地及園景設計大綱

Open Space and Landscape Design Framework

3.5.1. 除了建議城市設計圖外，研究亦制定了建議園景總綱圖，為研究地點休憩用地大綱及園景設計定下指引（圖 3.6）。主要休憩用地及園景方案的詳情如下：

Apart from the Recommended Urban Design Plan, a Recommended Landscape Master Plan is prepared to guide the open space framework and landscape design for the Study Site (Figure 3.6). Key open space and landscape proposals are detailed below:

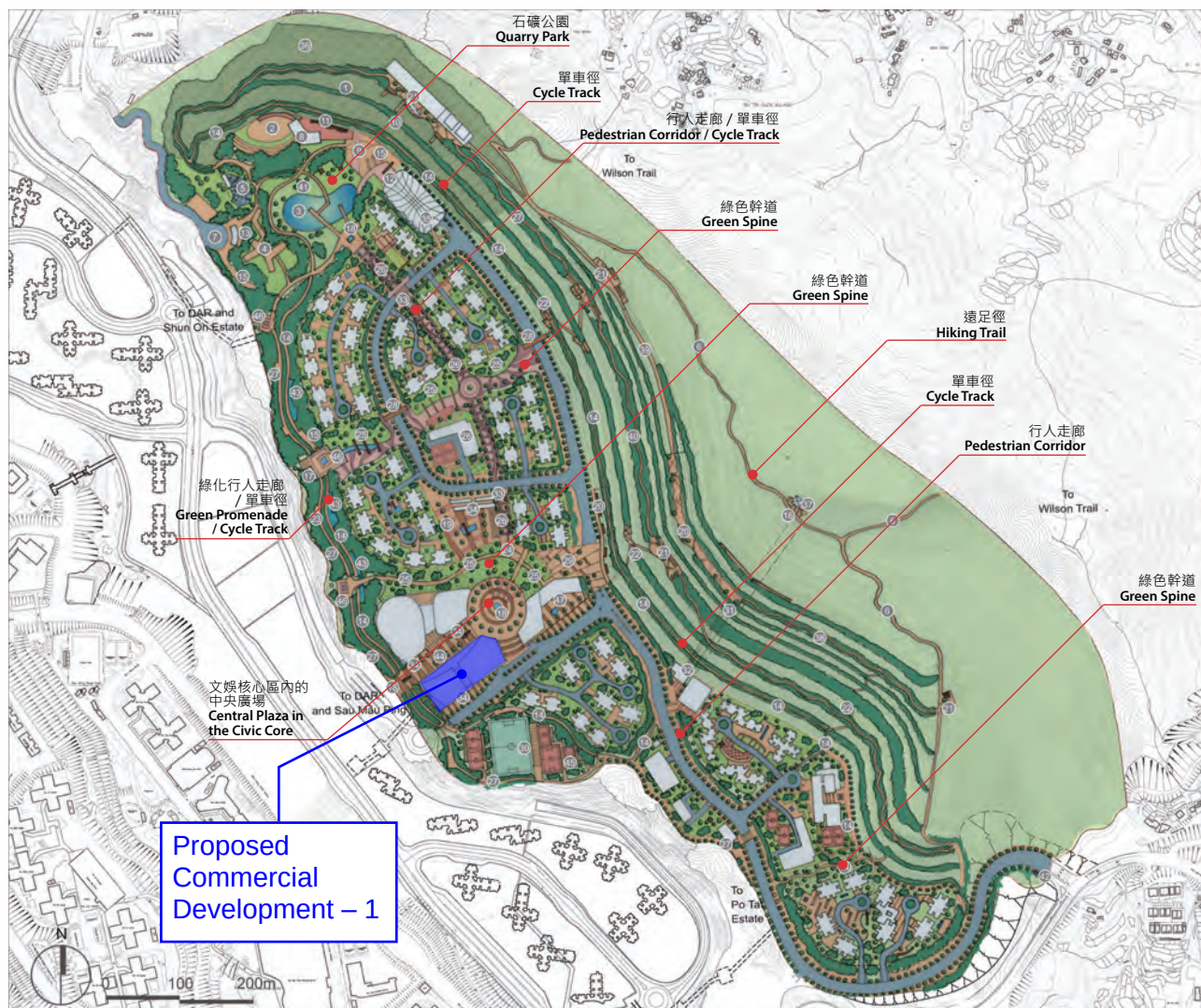


圖 3.6: 建議園景總綱圖

Figure 3.6: Recommended Landscape Master Plan

- **石礦公園** – 石礦公園位於研究地點沿西南邊界及其西北面的部分，會被設計為區域性公園。公園北部會提供一些區域性體育設施，包括攀石中心及石礦展覽 / 資源中心，亦會提供大型草坪、康樂休憩人工湖及一些露天表演場地。並建議包括緩跑徑、單車徑和可連接至大上托的遠足徑。公園南部沿平台邊緣會設立綠色走廊，毗鄰安達臣道發展，同時作為研究地點與安點、安達臣道發展及秀茂坪周邊地區的居民提供一

As the building height is not specified in the document, it is referenced according to the OZP, which indicates a height of +200mPD.

10. On Lai Court

10 發展項目的布局圖

Layout Plan of the Development

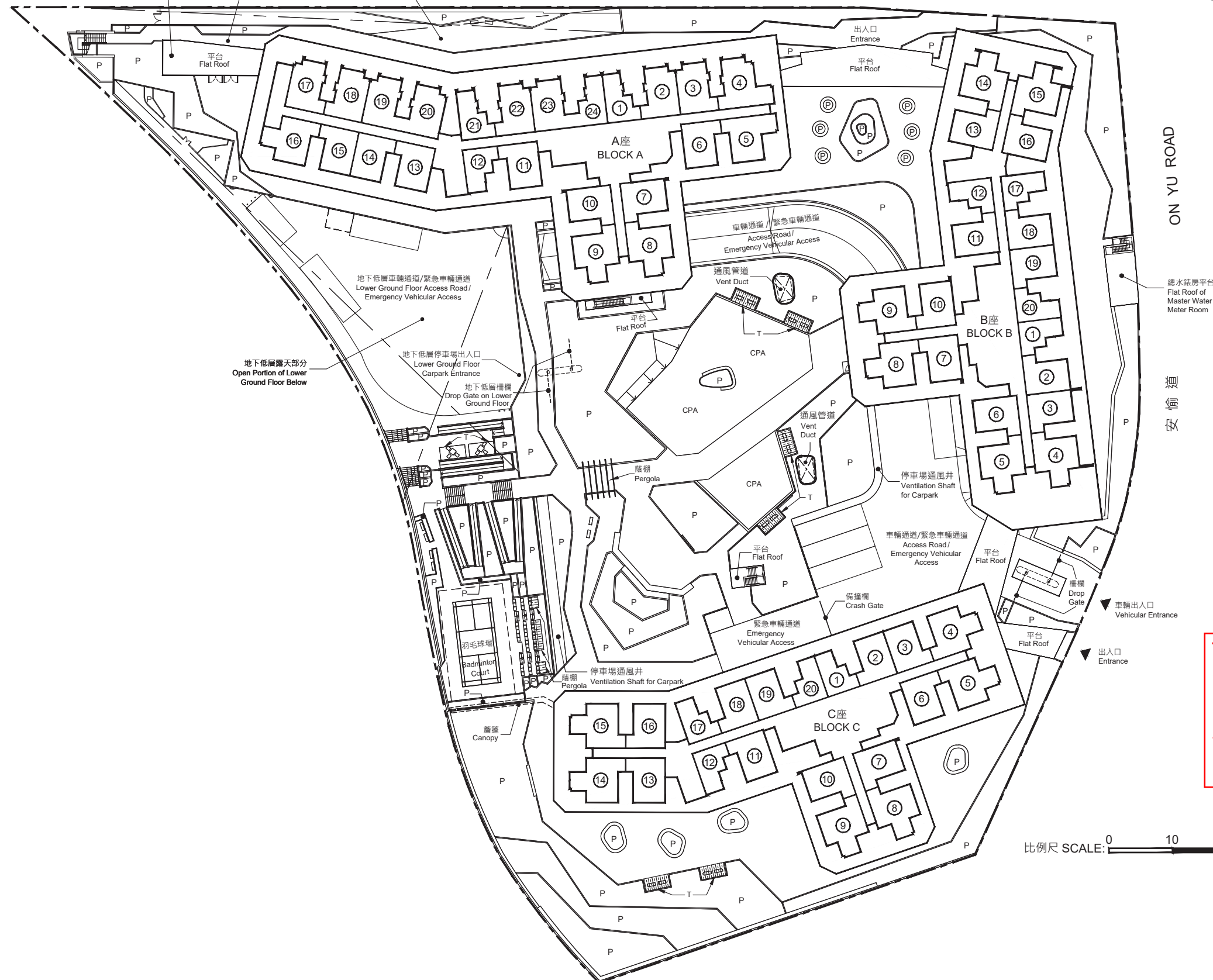
地下設有2部升降機通往地下低層停車場、幼稚園及長者鄰舍中心
There are 2 Lifts on Ground Floor in connection to the Carpark, Kindergarten and Neighbourhood Elderly Centre at Lower Ground Floor

出入口
Entrance

地下低層露天部分
Open Portion of Lower Ground Floor Below

安健道

ON KIN ROAD



ON YU ROAD

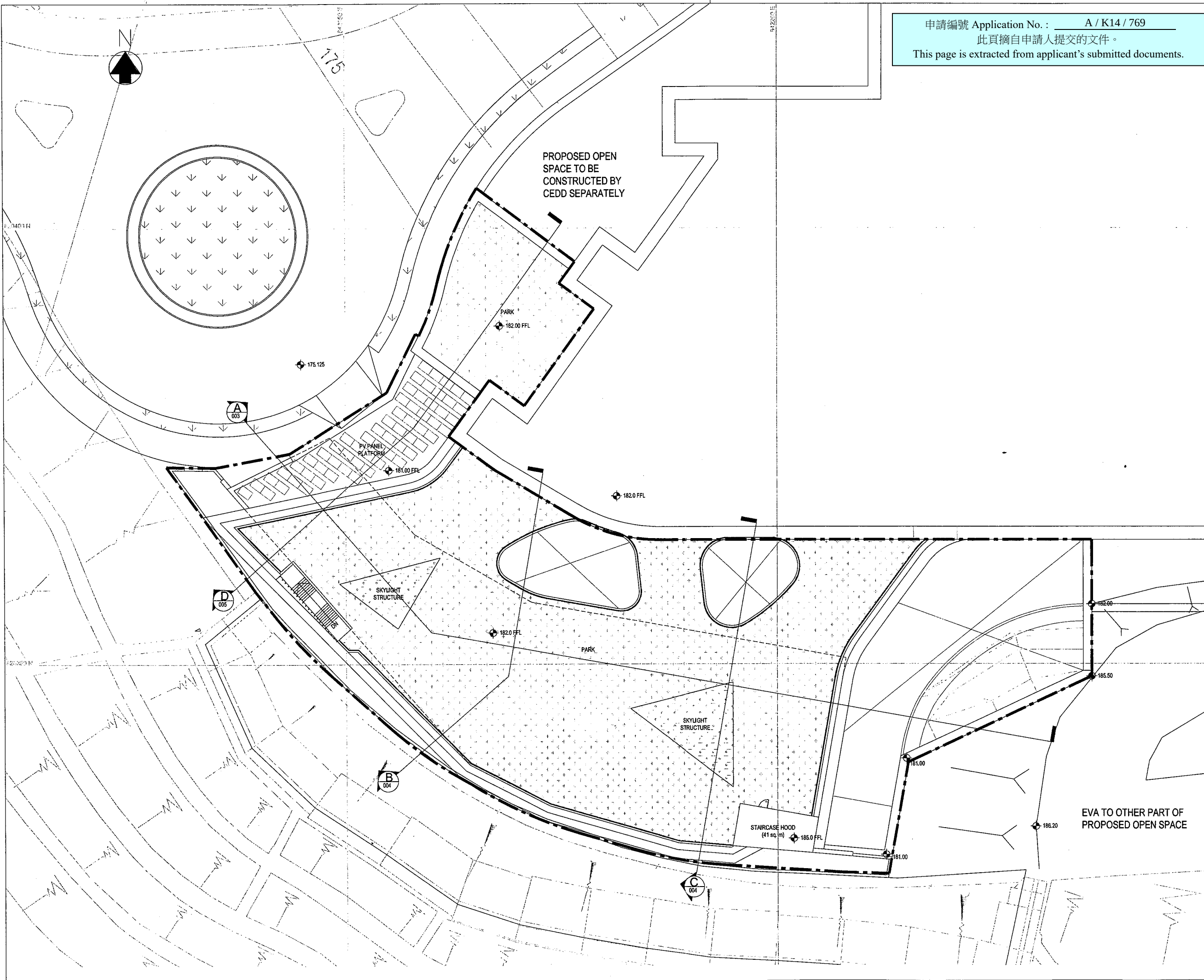
安愉道

車輛出入口
Vehicular Entrance

The building height is with reference to Applications for Planning Permission, which is +266mPD.

比例尺 SCALE: 0 10 20 30 40 50 (米)
(m)

11. Proposed Public Utility Installation – Grey Water Treatment Plant



申請編號 Application No. : A / K14 / 769
此頁摘自申請人提交的文件。
This page is extracted from applicant's submitted documents.

LEGEND:
[Dashed Line] APPLICATION SITE

Revision	Date		Description		Initial	
	Designed	Checked	Drawn	Checked		
Initial	ALEAD	HWL	ALEAD	HWL		
Date	11/18	11/18	11/18	11/18		

Approved

Agreement No. CE 62/2016 (WS)

Project Title
GREY WATER TREATMENT PLANT
FOR ANDERSON ROAD QUARRY
DEVELOPMENT—INVESTIGATION, DESIGN AND
CONSTRUCTION

Drawing Title

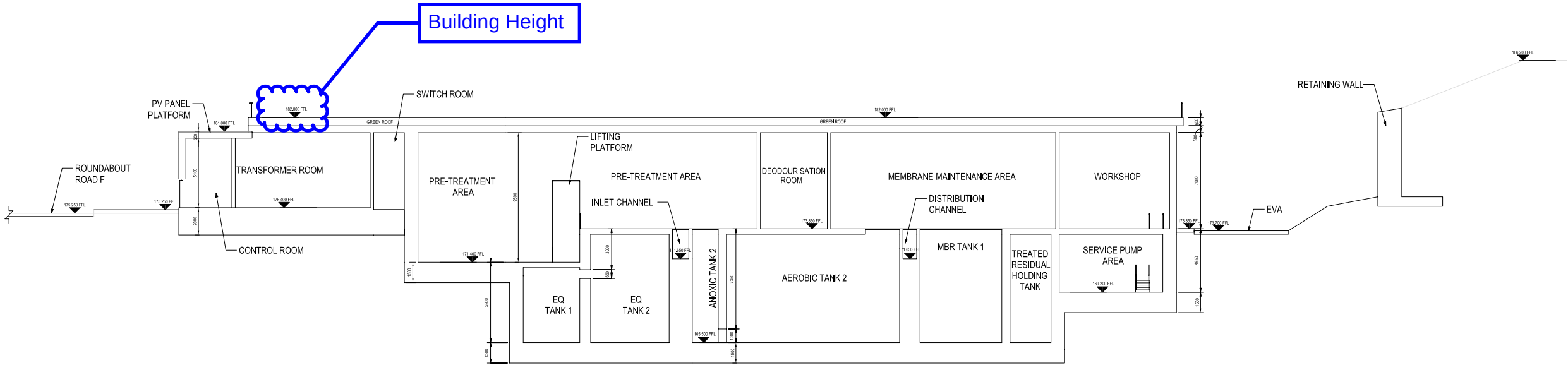
+182.0mPD
GROUND FLOOR PLAN

Drawing No.	Revision
006	—

Scale A1 1 : 200
A3 1 : 400

 水務署
Water Supplies
Department


BLACK & VEATCH HONG KONG LIMITED
博威工程顧問有限公司



SECTION A - A
Scale N.T.S. 001

A	11/18	LAYOUT REVISION			IL
Revision	Date	Description			Initial
	Designed	Checked	Drawn	Checked	
Initial	IL	HWL	SZ	HWL	
Date	11/18	11/18	11/18	11/18	

Approved

Agreement No. CE 62/2016 (WS)

Project Title
GREY WATER TREATMENT PLANT
FOR ANDERSON ROAD QUARRY
DEVELOPMENT-INVESTIGATION,
DESIGN AND CONSTRUCTION

Drawing Title
SECTION A-A

Drawing No.	003	Revision	A
-------------	-----	----------	---

Scale A1 N.T.S.



12. On Pak Court

發展項目的布局圖

Layout Plan of the Development



圖例 NOTATION

- 地界
Lot Boundary
- ① 1樓-17樓單位室號
(1樓不設11-16號單位及10-17樓不設13-14號單位)
Flat Number on 1/F-17/F
(No provision of Flats 11-16 for 1/F and Flats 13-14 for 10/F-17/F)
- CPA 兒童遊樂區
Children's Play Area
- P 花槽
Planter
- 花棚
Trellis
- 地下垃圾及物料回收房
Refuse Storage and Material Recovery Chamber on Ground Floor
- 地下廢物收集站及垃圾收集站
Junk Collection Point / Refuse Collection Point on Ground Floor

停車位類別	Category of Parking Space	數目 Number
	地下露天上落客貨停車位 Open Loading and Unloading Bays on Ground Floor	2
	地下露天輕型貨車停車位 Open Light Goods Vehicle Parking Spaces on Ground Floor	2
	地下有蓋汽車停車位 Covered Car Parking Spaces on Ground Floor	51
	地下有蓋電單車停車位 Covered Motorcycle Parking Spaces on Ground Floor	4
	地下有蓋垃圾車專用停車位 Covered Parking Space for Refuse Collection Vehicle on Ground Floor	1
	地下露天單車停車位 Open Bicycle Parking Spaces on Ground Floor	28
	地下有蓋暢通易達汽車停車位 (設有1.2米寬共用上落車位) Covered Accessible Car Parking Spaces on Ground Floor (with 1.2m wide Common Loading and Unloading Area)	2

As the sales booklet does not include the building height, the height is referenced according to the OZP, which is +245mPD.

13. Proposed Commercial Development – 2

3.5. 休憩用地及園景設計大綱

Open Space and Landscape Design Framework

3.5.1. 除了建議城市設計圖外，研究亦制定了建議園景總綱圖，為研究地點休憩用地大綱及園景設計定下指引（圖 3.6）。主要休憩用地及園景方案的詳情如下：

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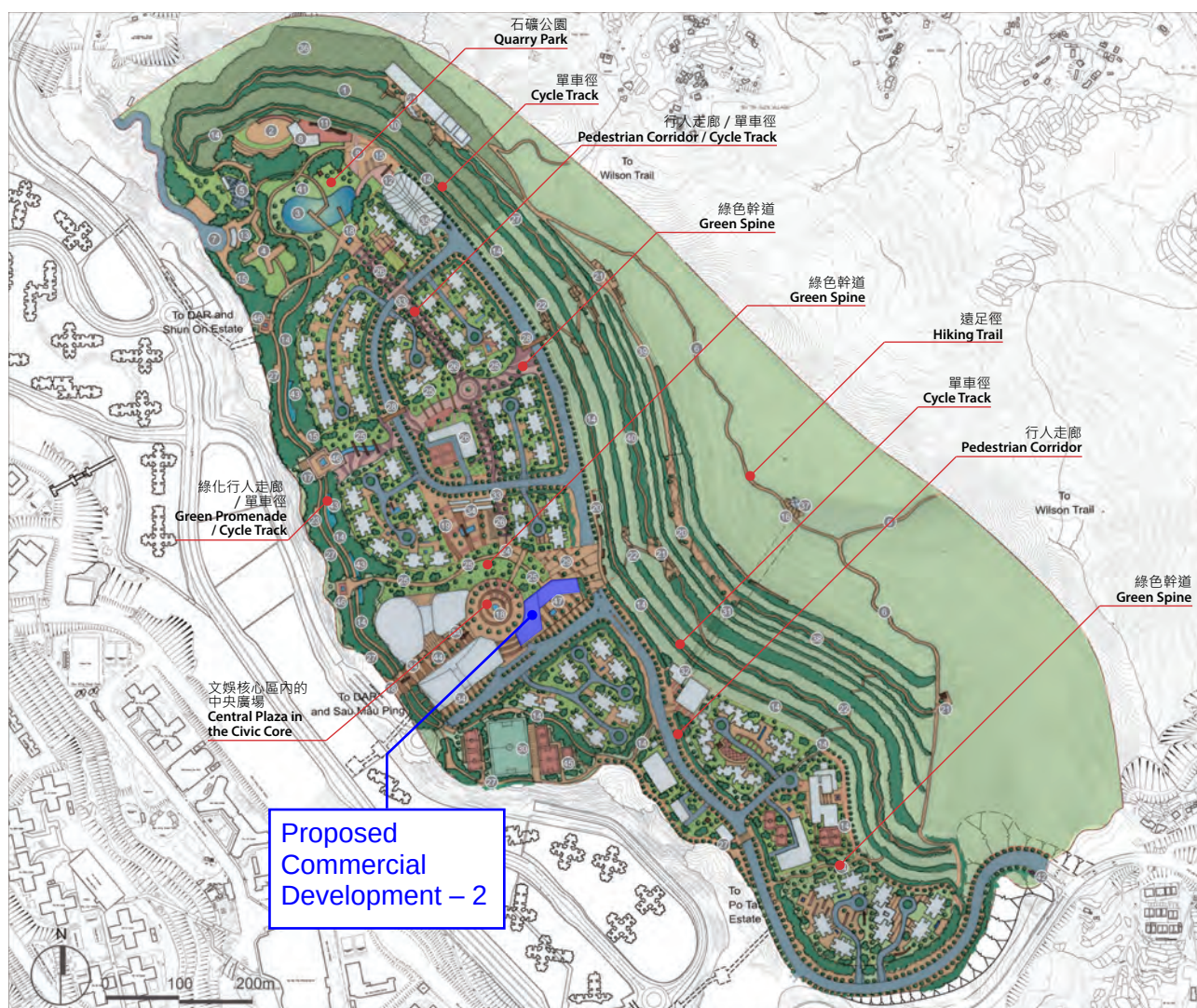


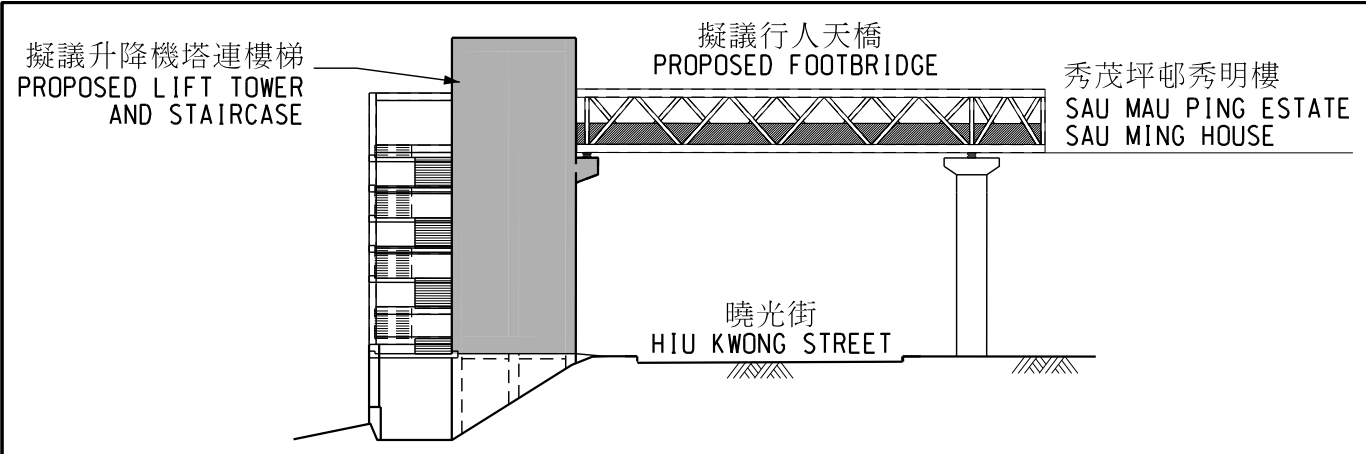
圖 3.6: 建議園景總綱圖

Figure 3.6: Recommended Landscape Master Plan

- **石礦公園** – 石礦公園位於研究地點沿西南邊界及其西北面的部分，會被設計為區域性公園。公園北部會提供一些區域性體育設施，包括攀石中心及石礦展覽 / 資源中心，亦會提供大型草坪、康樂休憩人工湖及一些露天表演場地。並建議包括緩跑徑、單車徑和可連接至大上托的遠足徑。公園南部沿平台邊緣會設立綠色走廊，毗鄰安達臣道發展，同時作為研究地點與安點、安達臣道發展及秀茂坪周邊地區的居民提供一

As the building height is not specified in the document, it is referenced according to the OZP, which indicates a height of +205mPD.

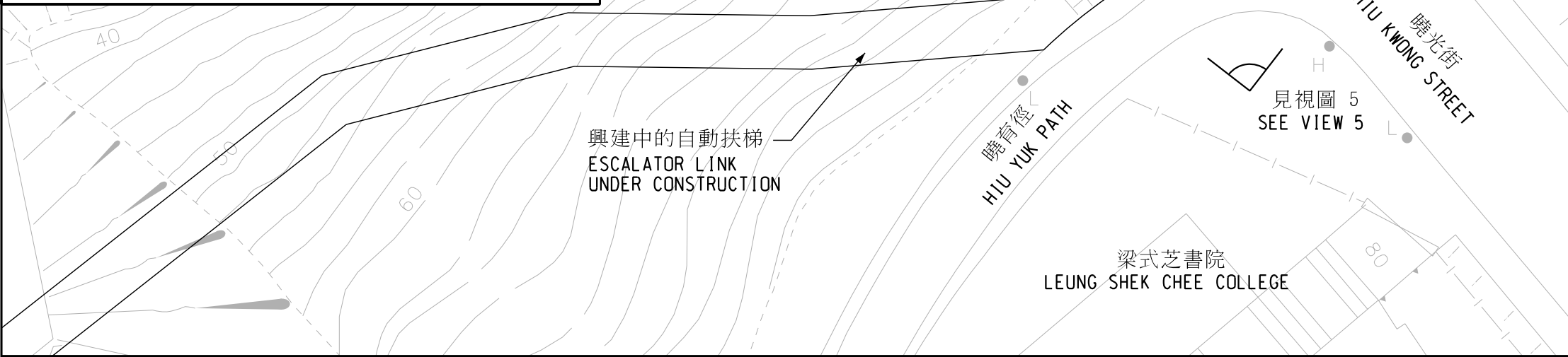
14. Footbridge between Hiu Kwong Street and the podium of Sau Ming House (FB1)



擬議行人天橋側面圖 6
ELEVATION VIEW 6 OF PROPOSED FOOTBRIDGE

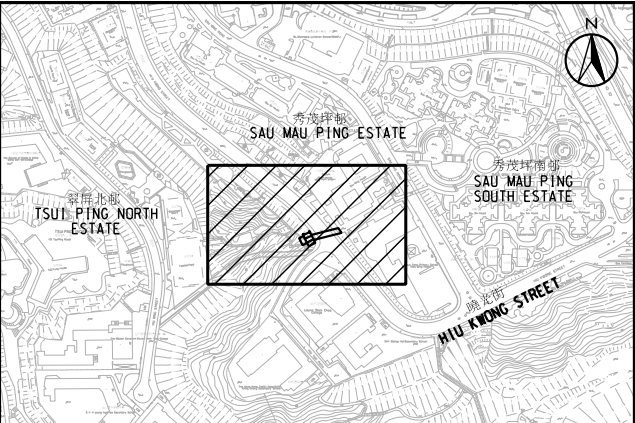


視圖 5 - 行人天橋的構想圖
VIEW 5 - ARTIST'S IMPRESSION FOR FOOTBRIDGE

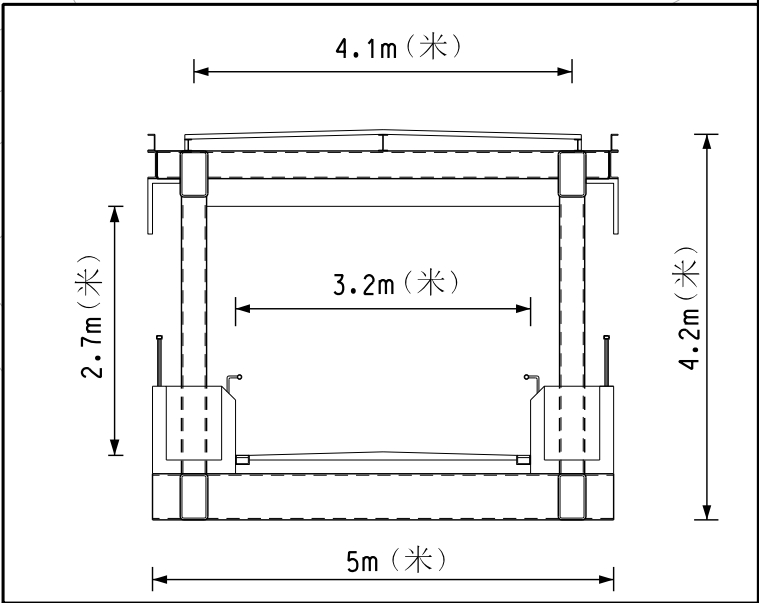


圖例：
LEGEND:

擬議連升降機塔及樓梯的行人天橋
PROPOSED FOOTBRIDGE WITH
LIFT TOWER AND STAIRCASE



位置圖 LOCATION PLAN

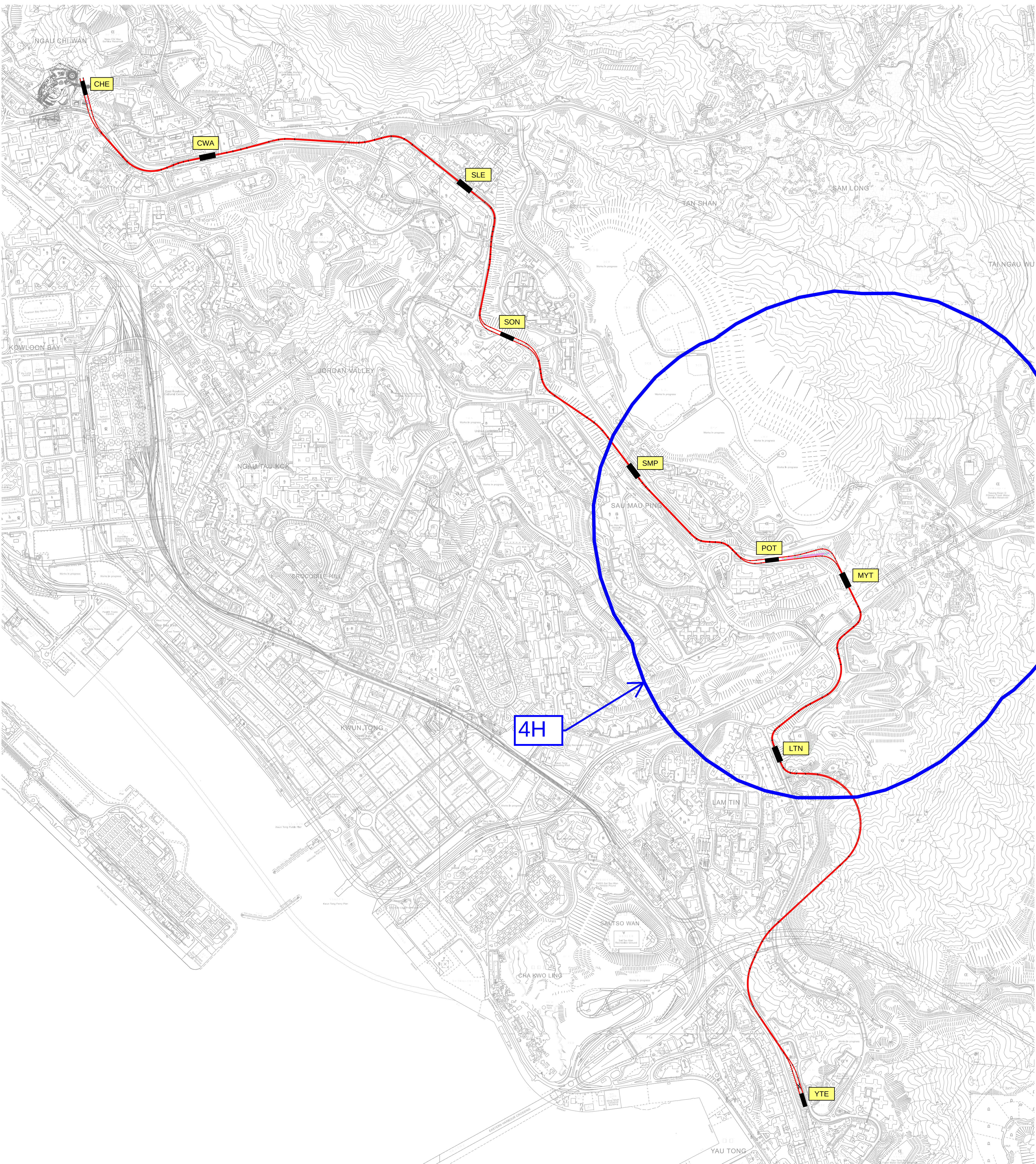


擬議行人天橋切面圖 B-B
PROPOSED FOOTBRIDGE SECTION B-B

圖則名稱 drawing title

工務計劃第765CL號 - 安達臣道石礦場用地發展 - 餘下行人連繫設施工程
PWP ITEM No. 765CL - DEVELOPMENT OF ANDERSON ROAD QUARRY SITE
- REMAINING PEDESTRIAN CONNECTIVITY FACILITIES WORKS

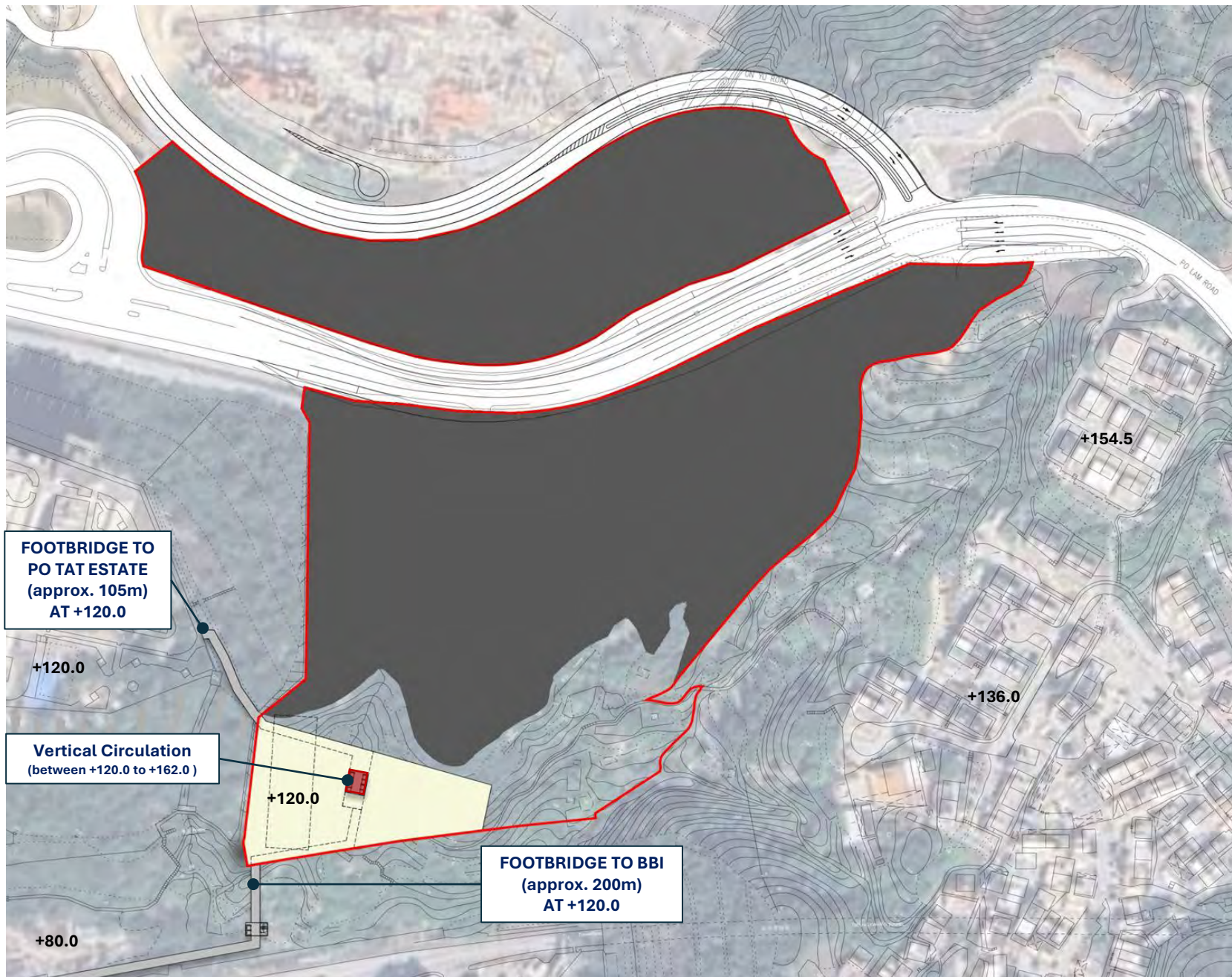
15. Viaduct for East Kowloon Line

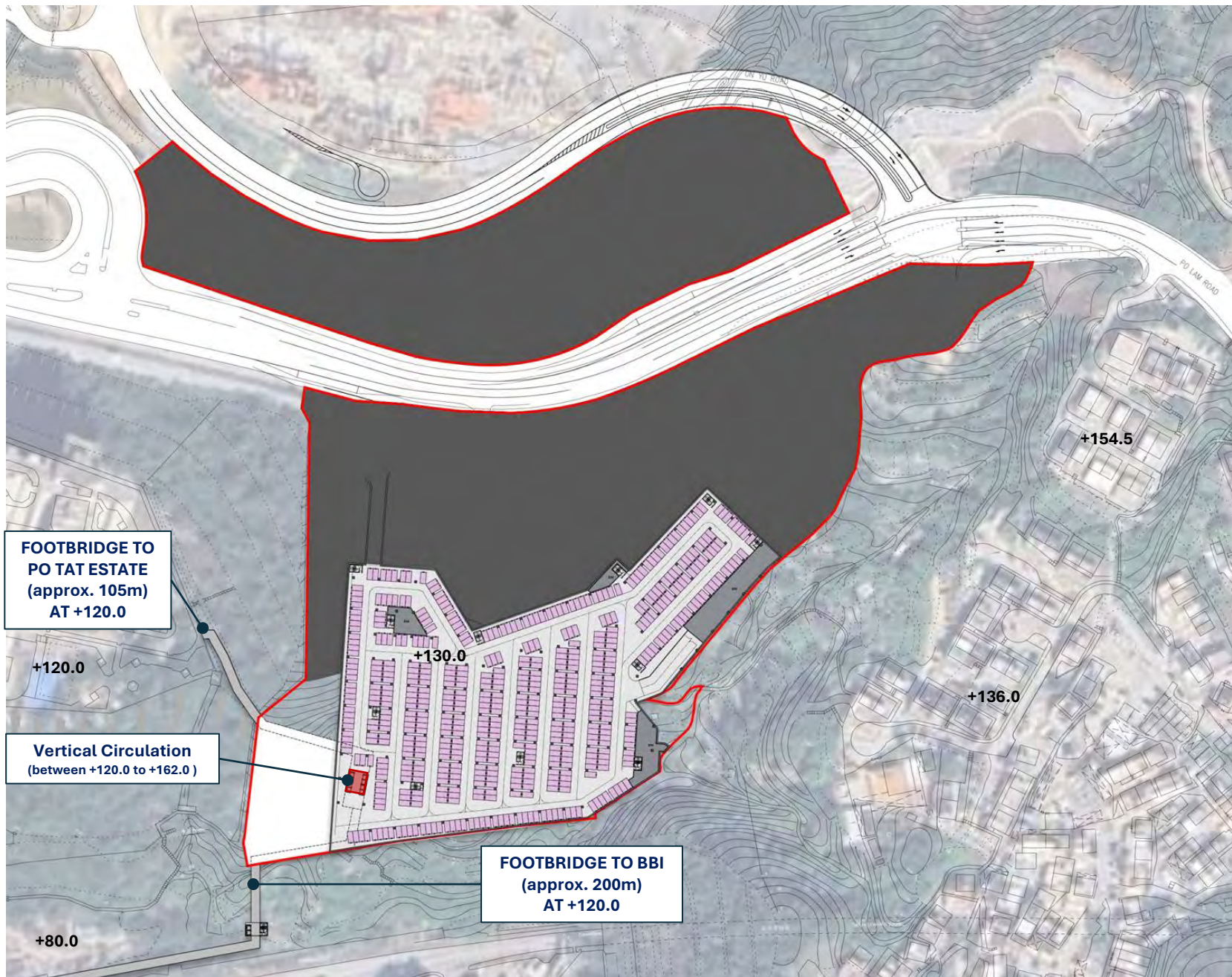


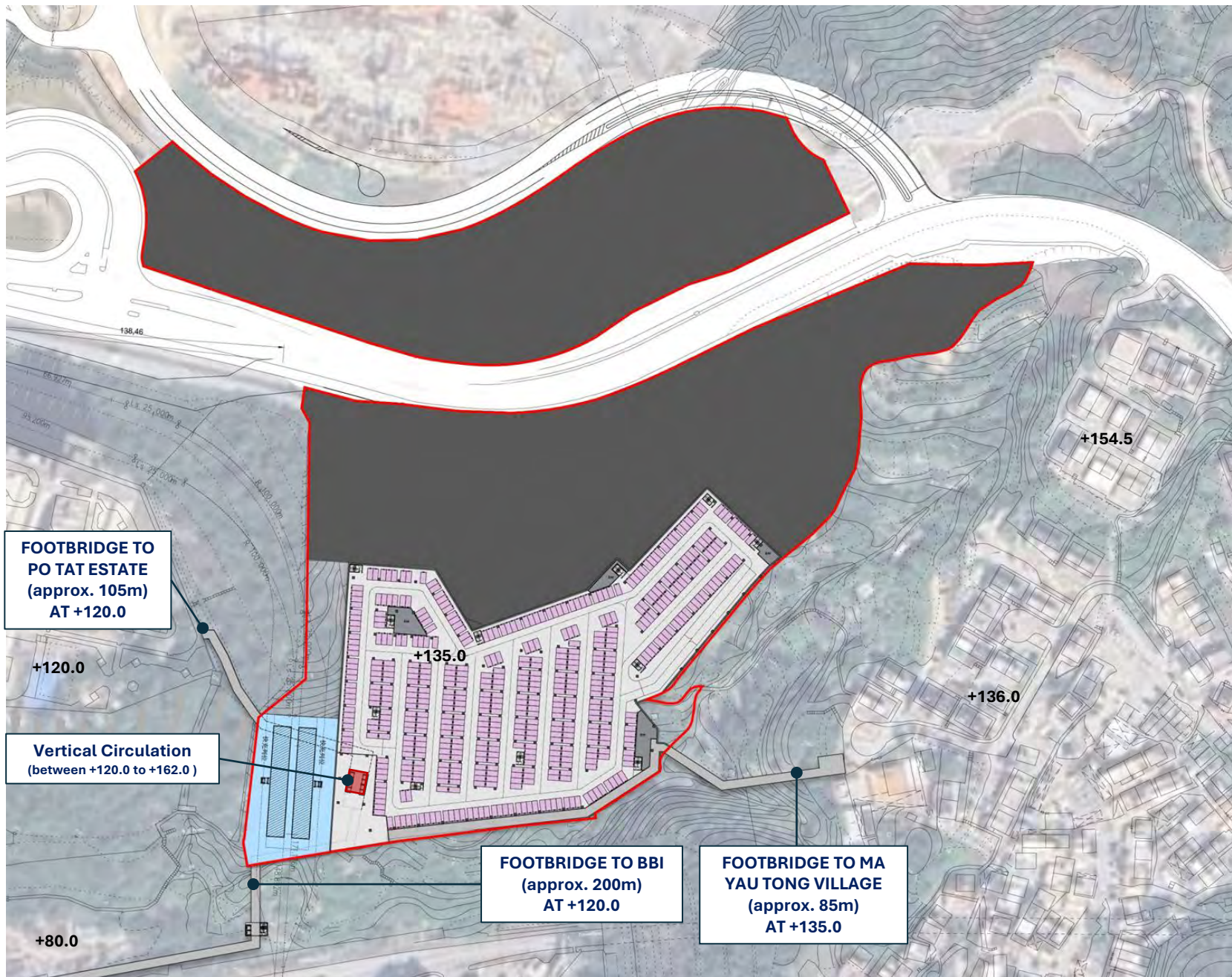
Appendix B

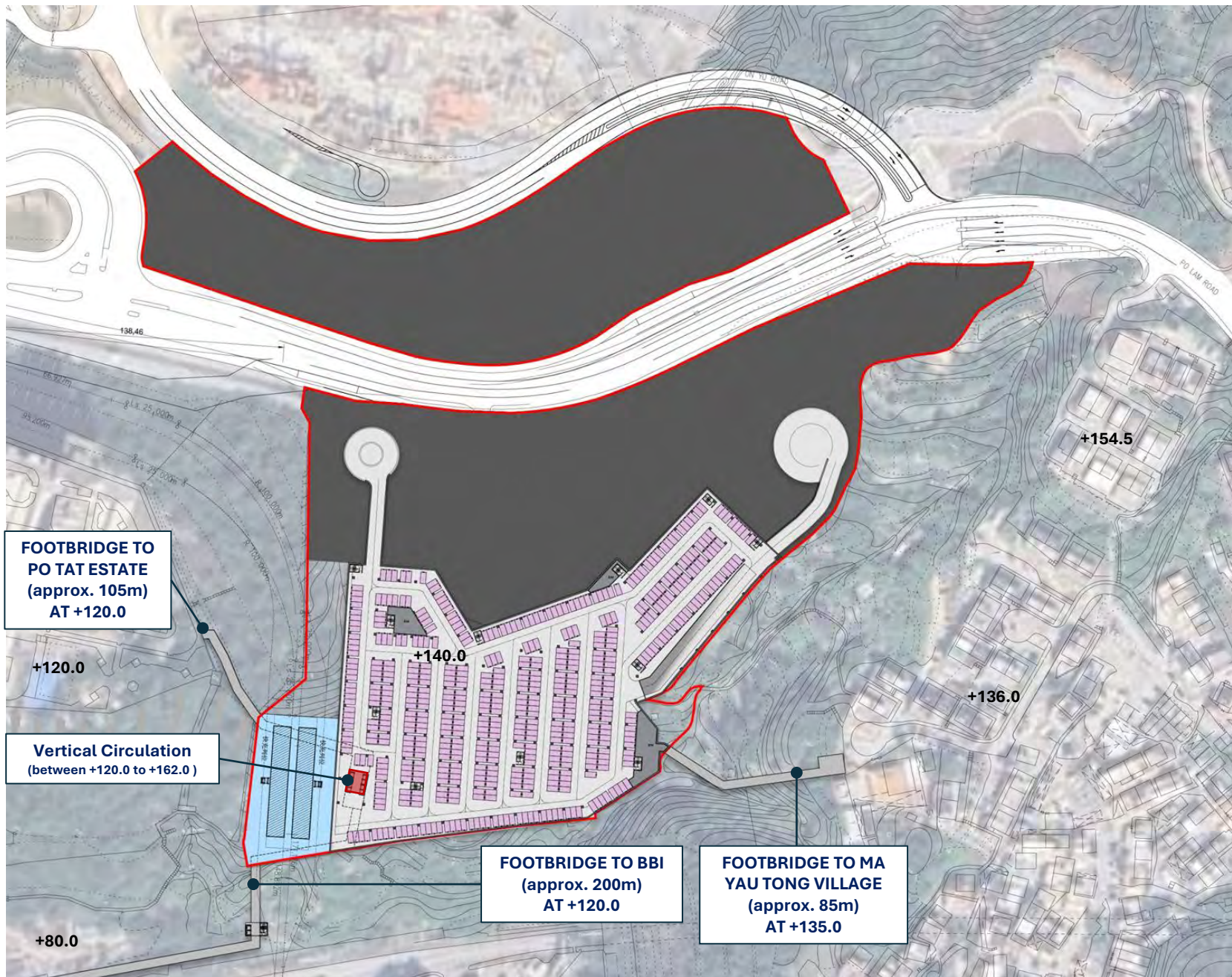
Master Layout Plans of Indicative Development Scheme and Revised Indicative Development Scheme

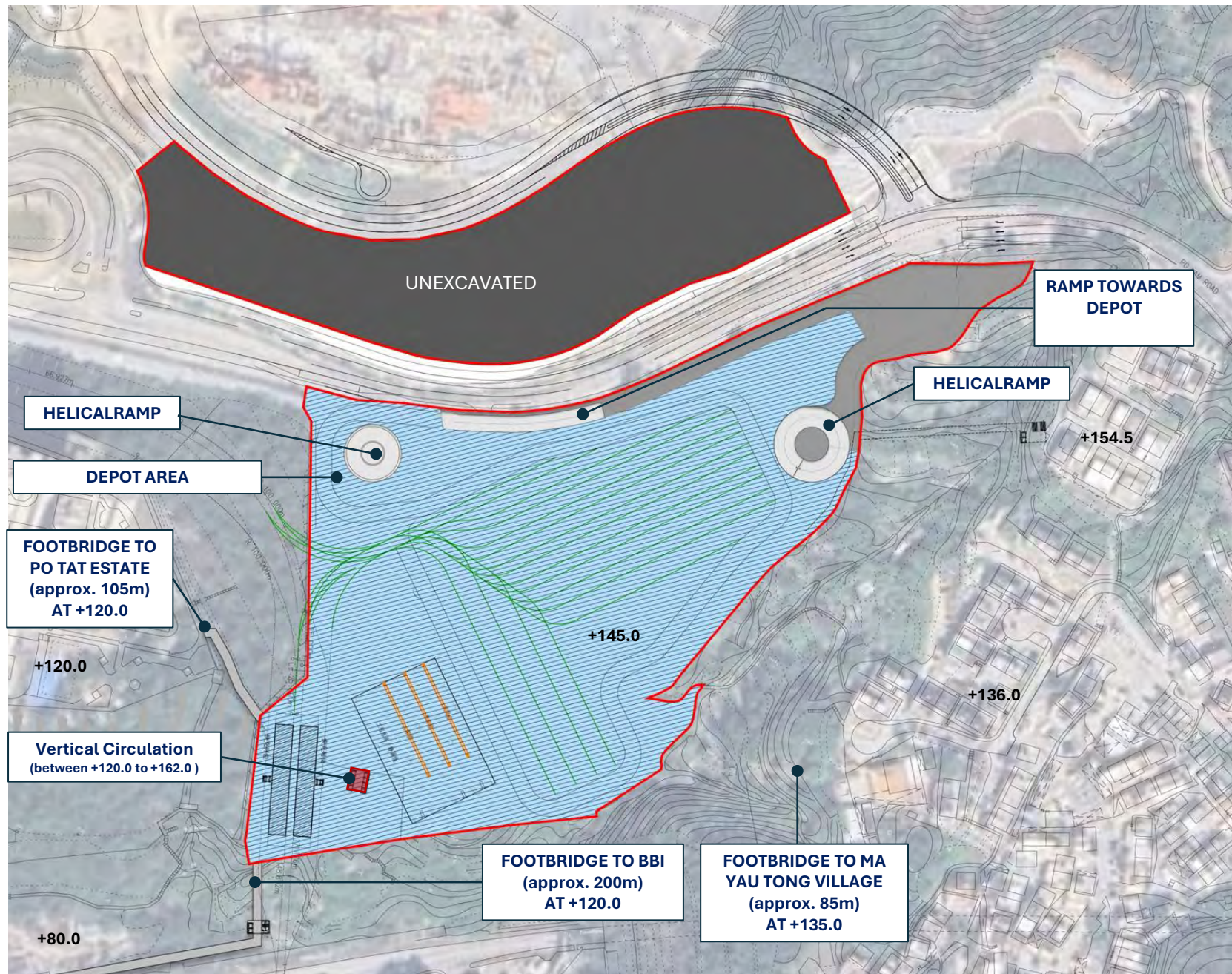
B.1 Indicative Development Scheme

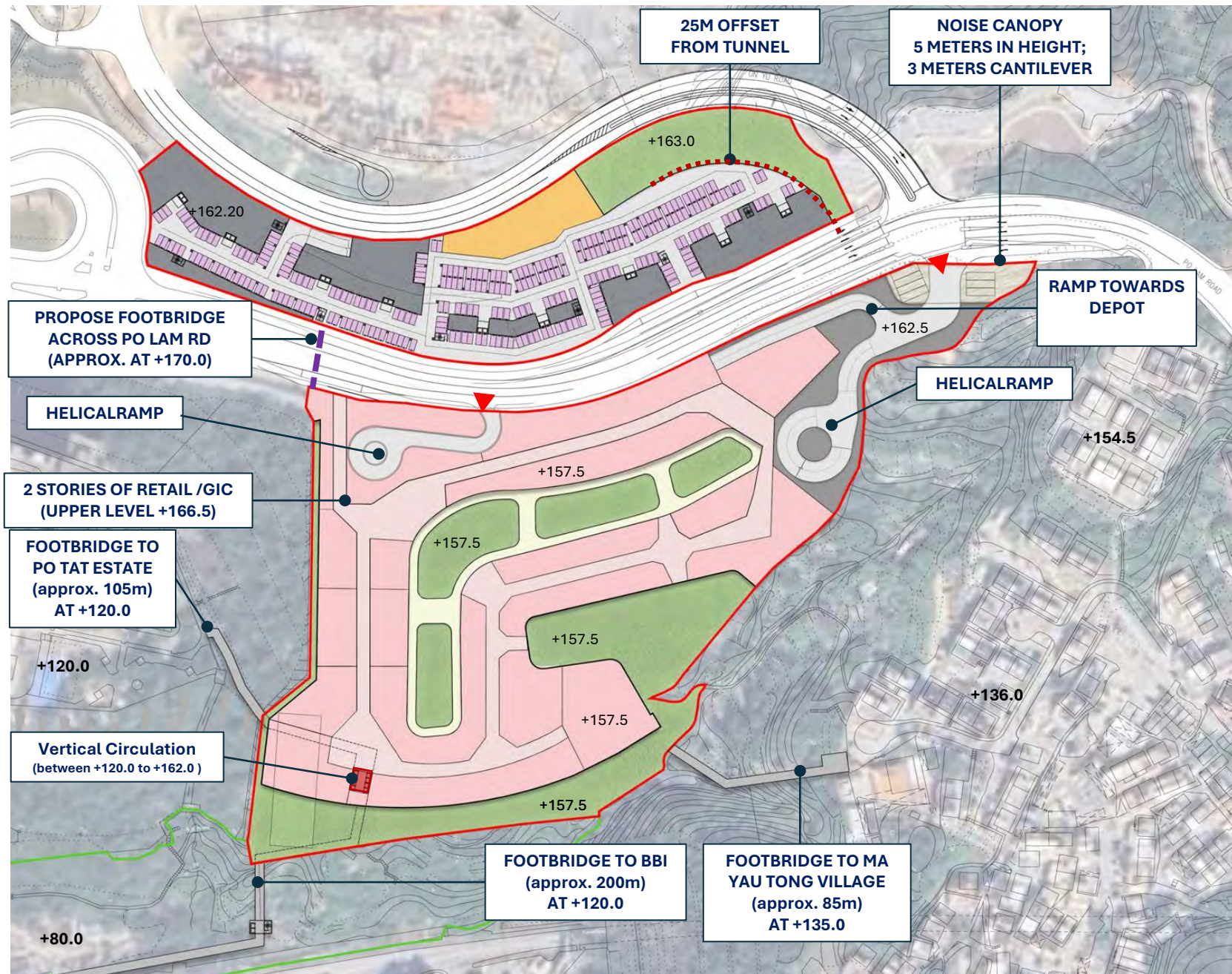


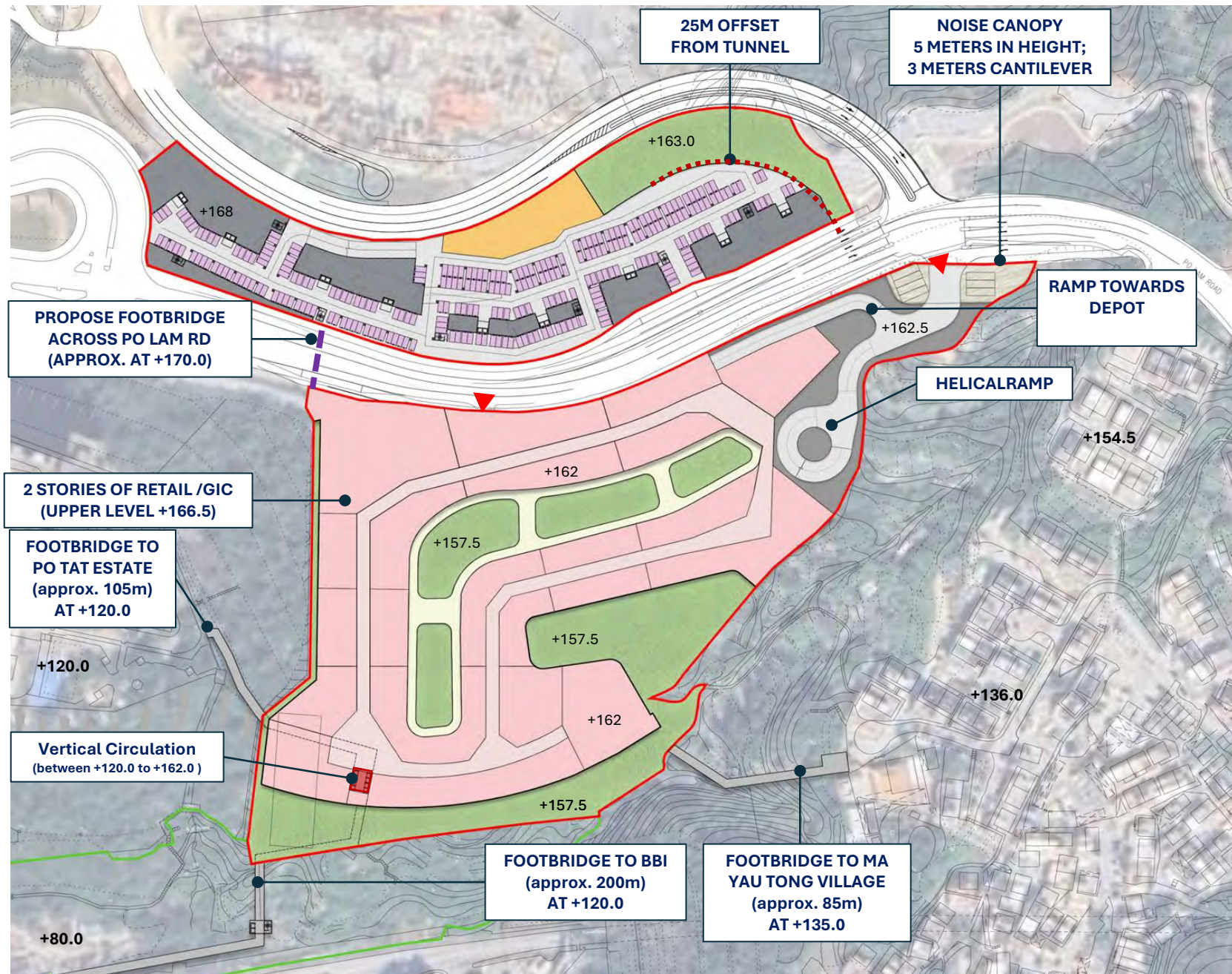


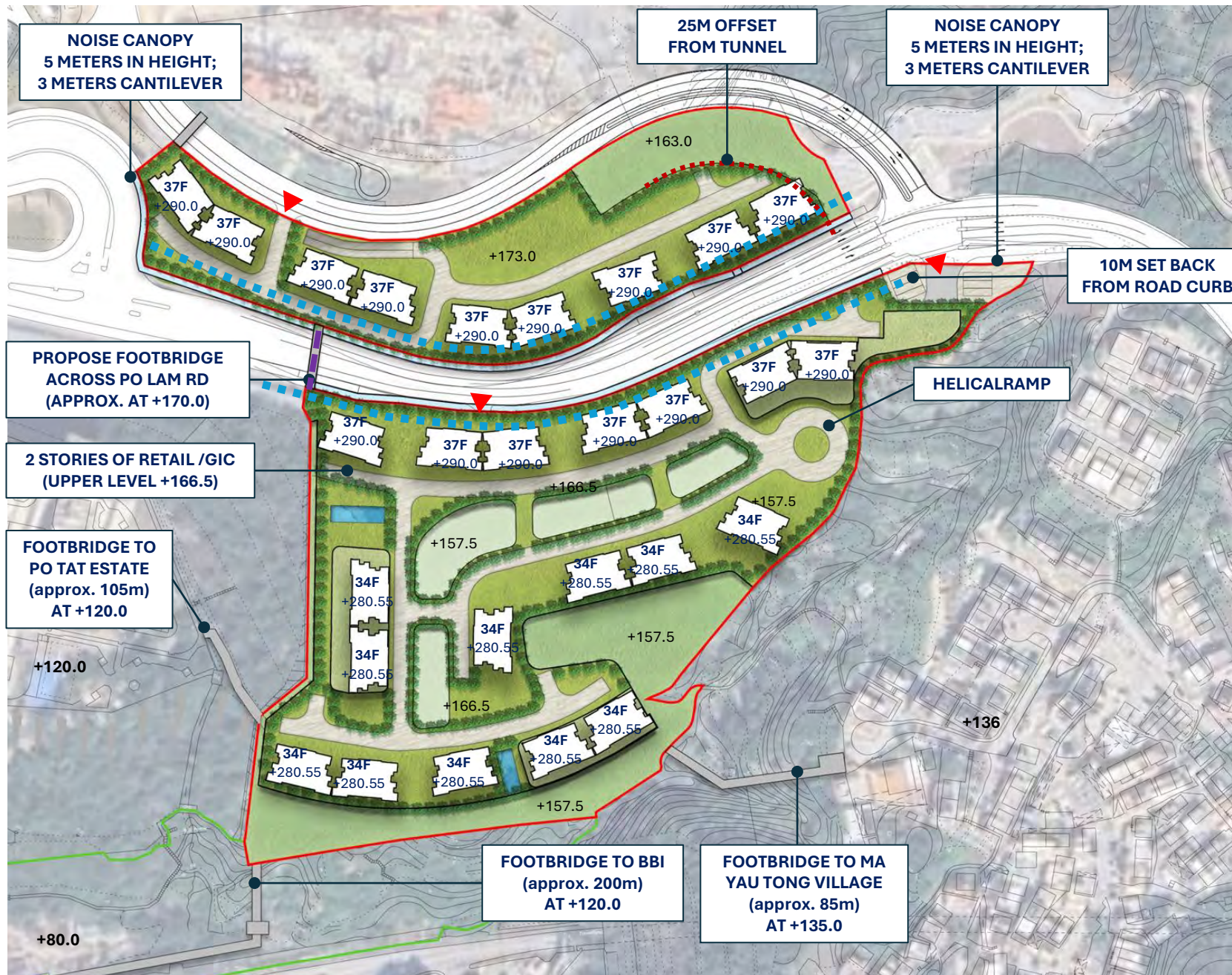












B.2 Revised Indicative Development Scheme



INDICATIVE ONLY AND SUBJECT TO DETAILED DESIGN

Legend

- | | | | | |
|---------------------------|-----------------------------|-----------------|----------------------|--------------------------------|
| Development Site Boundary | Landscaped Area | Residential | Swimming Pool | Publicly Accessible Open Space |
| Internal Road / EVA | E&M / Supporting Facilities | Noise Canopy | Carpark (Fire Truck) | Rezoning Site Boundary |
| Proposed Footbridge | Residential - Clubhouse | Ingress/ Egress | Pedestrian Access | |

C	Planning Re-Submission	19/5/2025
B	Planning Re-Submission	27/2/2025
A	Planning Re-Submission	22/1/2025
-	Planning Submission	4/11/2024

Rev	Description	By	Date
Consultant:			

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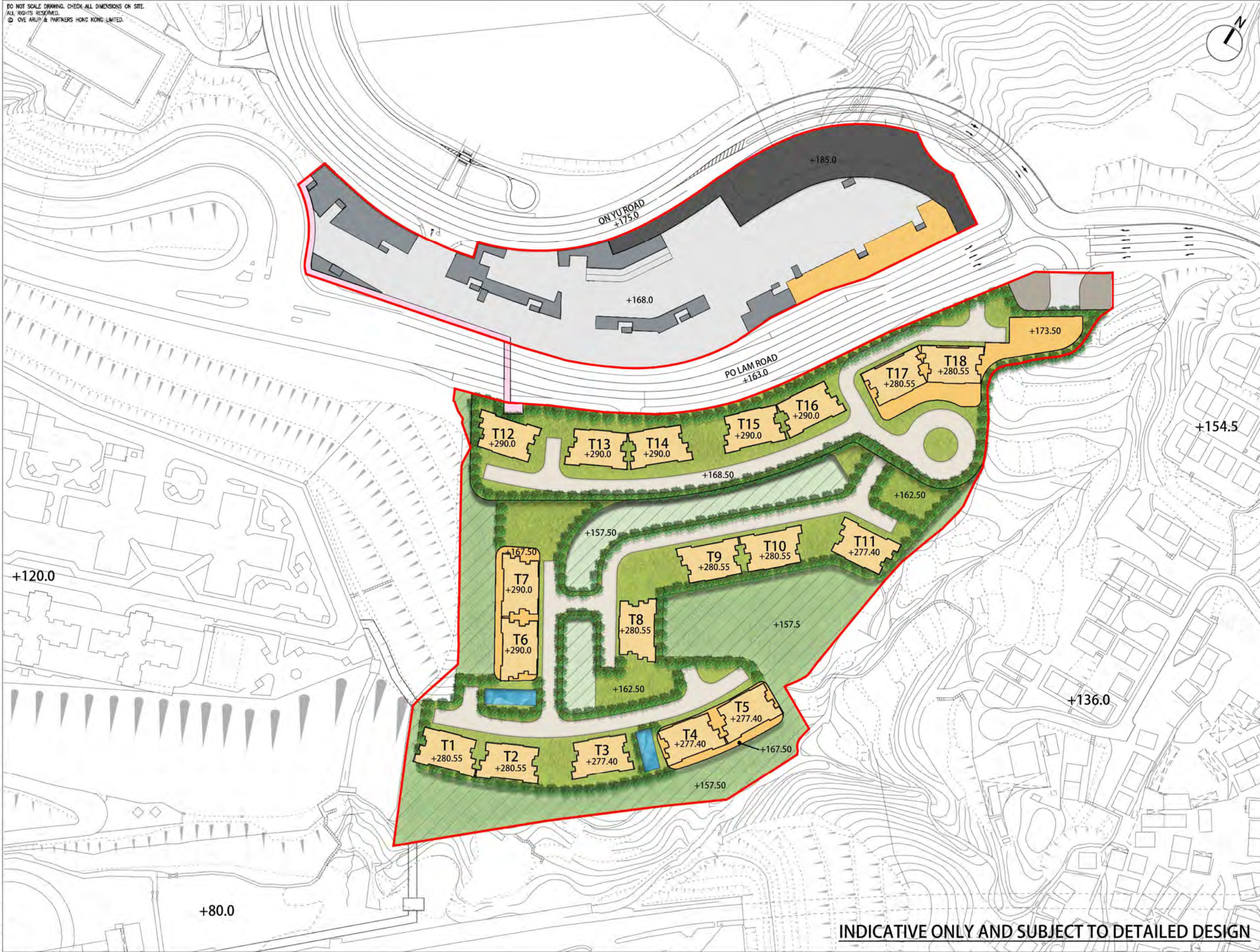
Drawing Title
Topside Development at Depot Site,
Po Lam Road, Kwun Tong (Overall)

Drawn	SLA	Date	4/11/2024	Checked		Approved	
Scale	N.T.S.	Status					

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Legend

Development Site Boundary	Landscaped Area	Residential	Swimming Pool	Unexcavated Area
Internal Road / EVA	E&M / Supporting Facilities	Noise Canopy	Carpark (Fire Truck)	
Proposed Footbridge / Lift Access / Pedestrian Walkway	Residential - Clubhouse	Carpark	Public Open Space	

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C	Planning Re-Submission	19/5/2025
B	Planning Re-Submission	27/2/2025
A	Planning Re-Submission	22/1/2025
-	Planning Submission	4/11/2024

Rev	Description	By	Date
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Consultant

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Drawing title

Topside Development at Depot Site, Po Lam Road, Kwun Tong

LEVEL AT +168.5 mPD / +168.0 mPD

Drawing no.	Rev.
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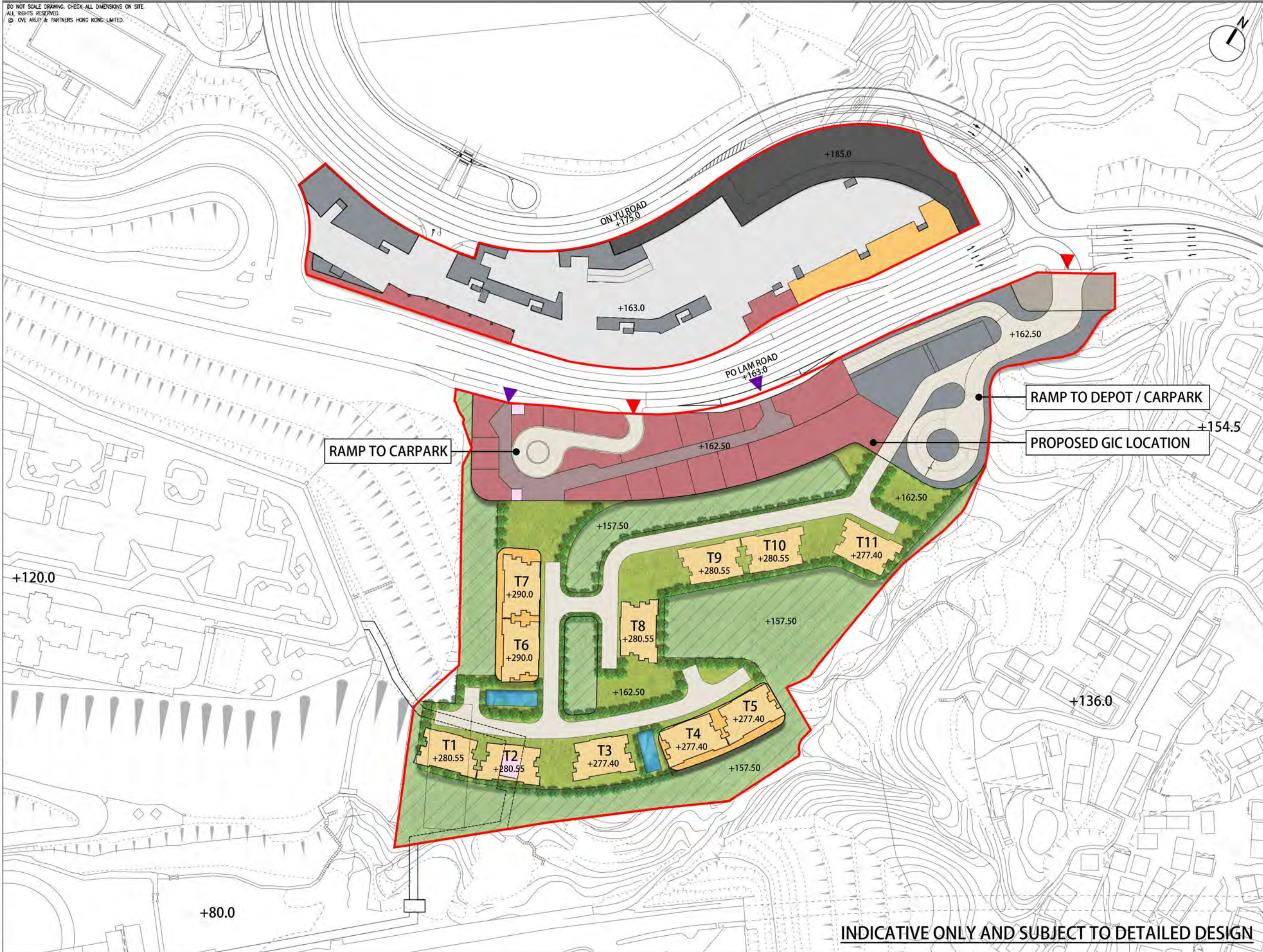
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Scale	N.T.S.	Status			

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Legend

Development Site Boundary	Landscaped Area	Commercial / GIC	Carpark (Fire Truck)	Public Open Space
Internal Road	E&M / Supporting Facilities	Commercial / GC - Internal Corridor	Unexcavated Area	Residential
Proposed Footbridge / Lift Access / Pedestrian Walkway	Residential - Clubhouse	Carpark	Pedestrian Access	Ingress / Egress

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C	Planning Re-Submission	19/5/2025
B	Planning Re-Submission	27/2/2025
A	Planning Re-Submission	22/1/2025
-	Planning Submission	4/11/2024

Rev	Description	By	Date
Consultant			

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Investigation, Design and Construction

Drawing title
Topside Development at Depot Site,
Po Lam Road, Kwun Tong

LEVEL AT +162.5 mPD / +163.0 mPD

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Legend

- | | | | |
|--|-----------------------------|-------------------------------------|----------------------|
| Development Site Boundary | Landscaped Area | Commercial / GIC | Carpark (Fire Truck) |
| Internal Road | E&M / Supporting Facilities | Commercial / GC - Internal Corridor | Unexcavated Area |
| Proposed Footbridge / Lift Access / Pedestrian Walkway | Carpark | Public Open Space | Ingress / Egress |

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C	Planning Re-Submission	19/5/2025
B	Planning Re-Submission	27/2/2025
A	Planning Re-Submission	22/1/2025
-	Planning Submission	4/11/2024

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Drawing title
Topside Development at Depot Site K-4
Indicative Development Scheme

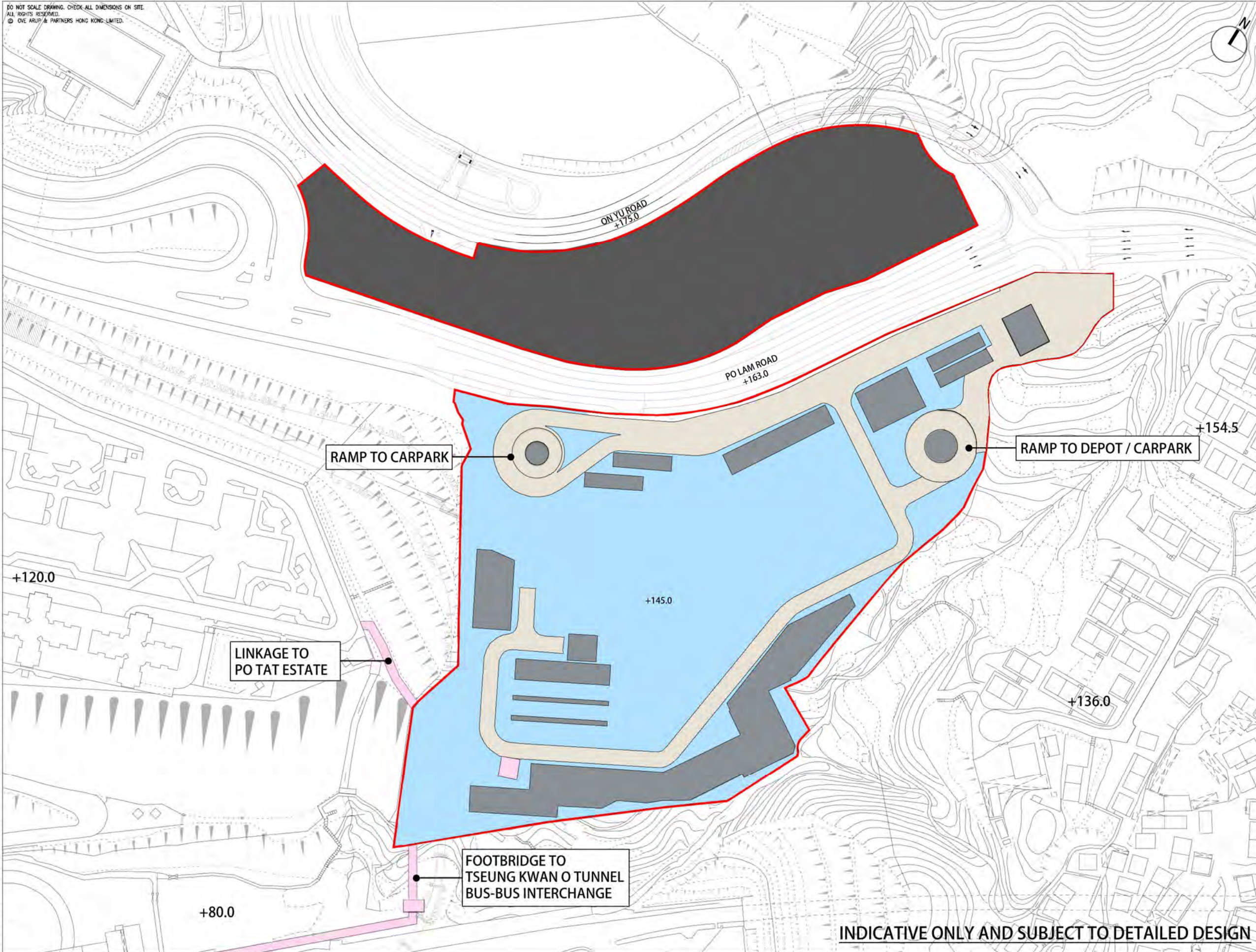
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Legend

- | | | | |
|--|--|--|-----------------------------|
| | Development Site Boundary | | Proposed Depot |
| | Internal Road | | E&M / Supporting Facilities |
| | Proposed Footbridge / Lift Access / Pedestrian Walkway | | Unexcavated Area |

C	Planning Re-Submission	19/5/2025
B	Planning Re-Submission	27/2/2025
A	Planning Re-Submission	22/1/2025
-	Planning Submission	4/11/2024

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Smart and Green Mass Transit System in East Kowloon - Investigation, Design and Construction

Drawing title
Topside Development at Depot Site, Po Lam Road, Kwun Tong

LEVEL AT +145.0 mPD

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Legend

- Development Site Boundary
- Carpark
- Proposed Footbridge / Lift Access / Pedestrian Walkway
- Proposed Ma Yau Tong Station
- E&M / Supporting Facilities
- Unexcavated Area

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C	Planning Re-Submission	19/5/2025
B	Planning Re-Submission	27/2/2025
A	Planning Re-Submission	22/1/2025
-	Planning Submission	4/11/2024

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Drawing title
Topside Development at Depot Site,
Po Lam Road, Kwun Tong

LEVEL AT +140.0 mPD

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C	Planning Re-Submission	19/5/2025
B	Planning Re-Submission	27/2/2025
A	Planning Re-Submission	22/1/2025
-	Planning Submission	4/11/2024

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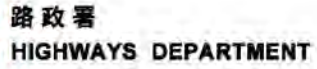


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Topside Development at Depot Site,
Po Lam Road, Kwun Tong
LEVEL AT +135.0 mPD

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Legend

 **Development Site Boundary**

 **Carpark**

 **Proposed Footbridge / Lift Access / Pedestrian Walkway**

 **Proposed Ma Yau Tong Station**

 **E&M / Supporting Facilities**

 **Unexcavated Area**

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Legend

- Development Site Boundary
- Carpark
- Proposed Footbridge / Lift Access / Pedestrian Walkway
- E&M / Supporting Facilities
- Unexcavated Area
- Proposed Ma Yau Tong Station

C	Planning Re-Submission	19/5/2025
B	Planning Re-Submission	27/2/2025
A	Planning Re-Submission	22/1/2025
-	Planning Submission	4/11/2024

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Drawing title

Topside Development at Depot Site, Po Lam Road, Kwun Tong

LEVEL AT +130.0 mPD

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Legend

- Development Site Boundary
- Multi-level Communal Space
- Proposed Footbridge / Lift Access / Pedestrian Walkway
- Unexcavated Area
- Existing Linkage
- Proposed Ma Yau Tong Station

C	Planning Re-Submission	19/5/2025
B	Planning Re-Submission	27/2/2025
A	Planning Re-Submission	22/1/2025
-	Planning Submission	4/11/2024

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Topside Development at Depot Site, Po Lam Road, Kwun Tong
LEVEL AT +120.0 mPD

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Appendix C

Contour Plots of Velocity Ratio (VR)

C.1 Baseline Scheme – Assessment Area

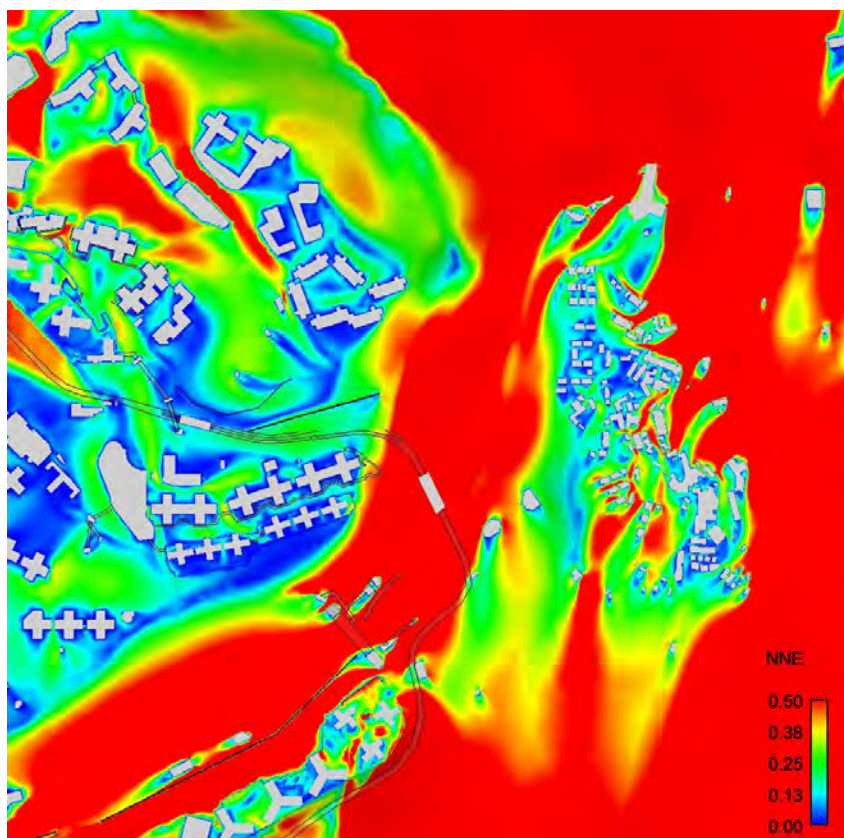


Figure C-1 Contour Plot of VR under NNE Wind

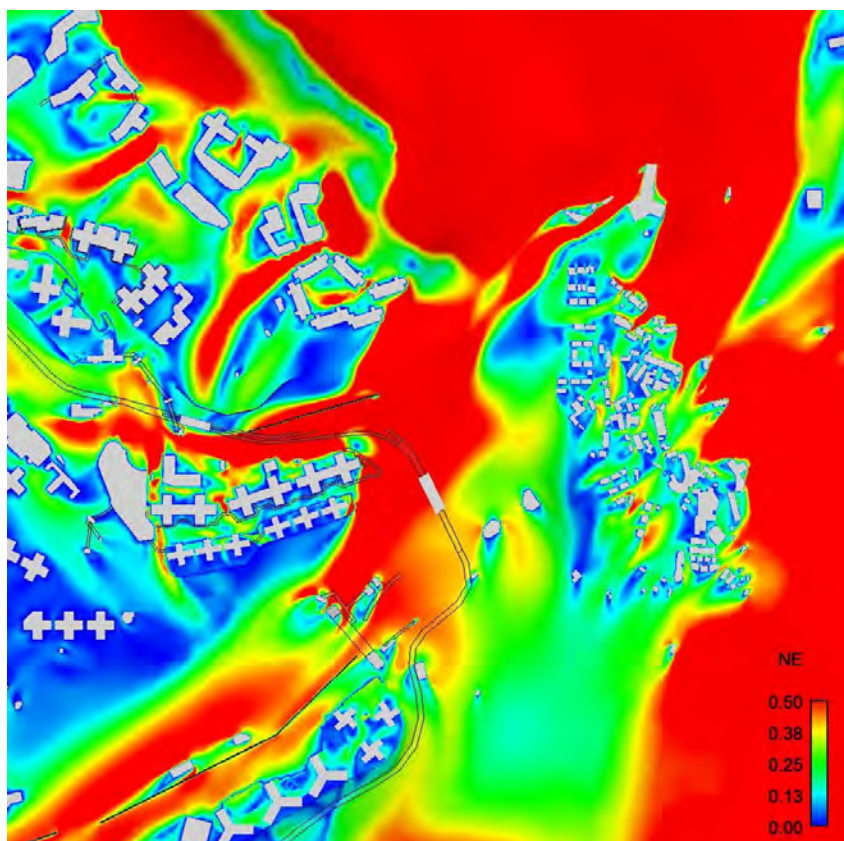


Figure C-2 Contour Plot of VR under NE Wind

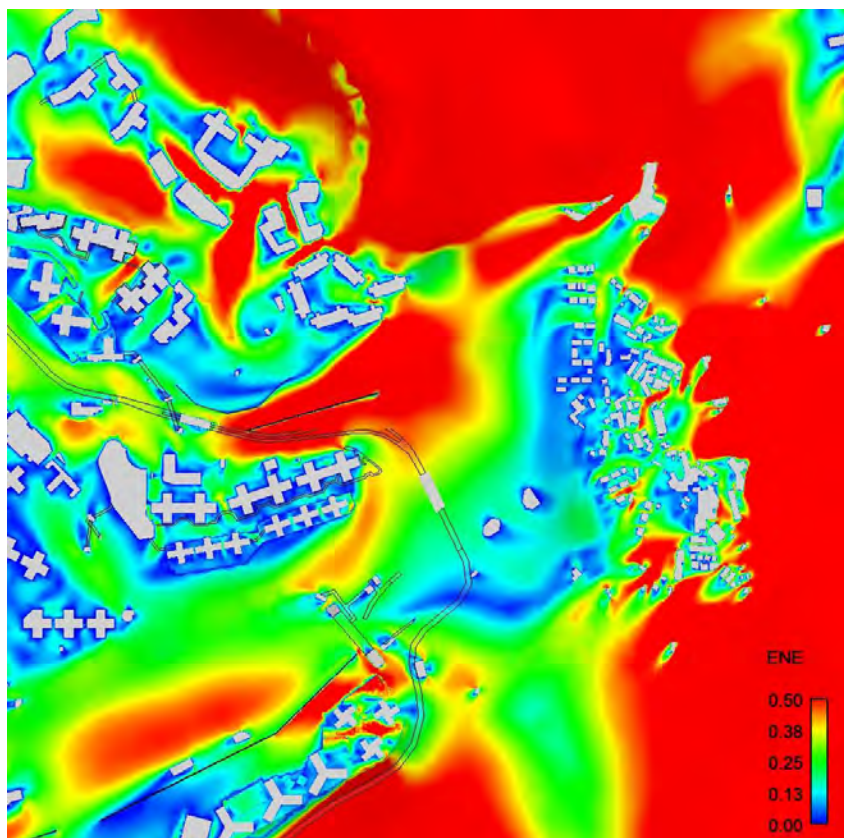


Figure C-3 Contour Plot of VR under ENE Wind

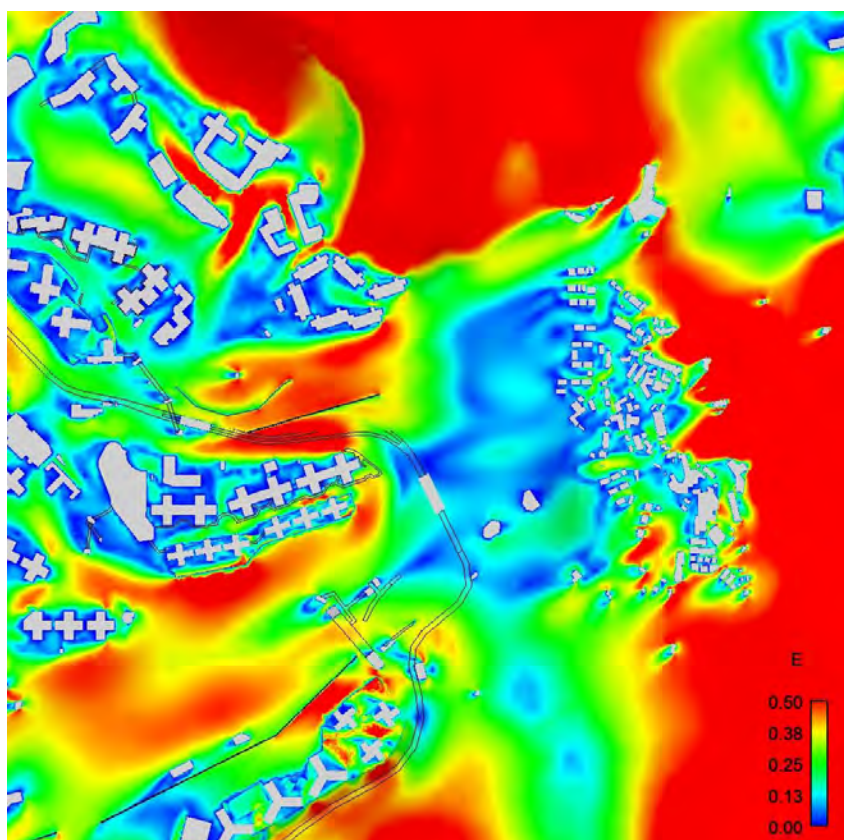


Figure C-4 Contour Plot of VR under E Wind

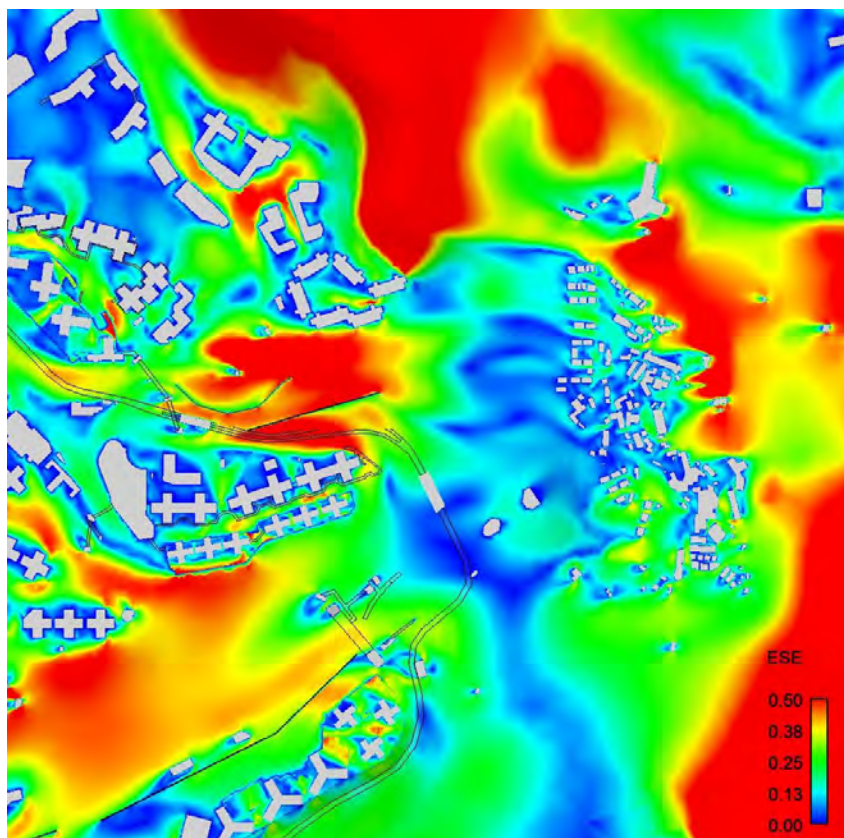


Figure C-5 Contour Plot of VR under ESE Wind

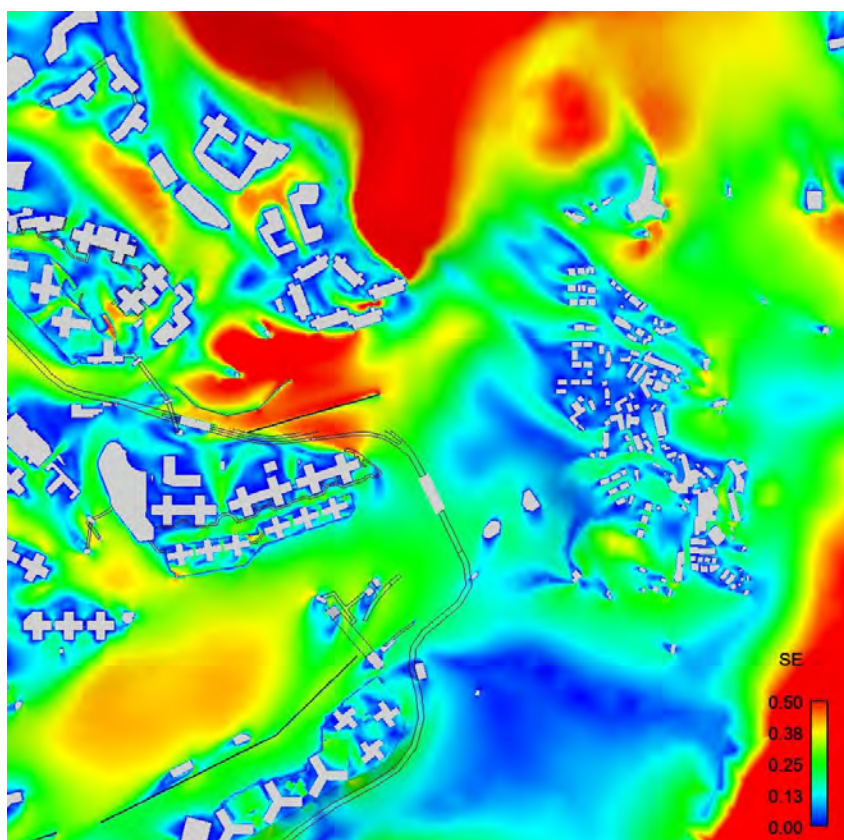


Figure C-6 Contour Plot of VR under SE Wind

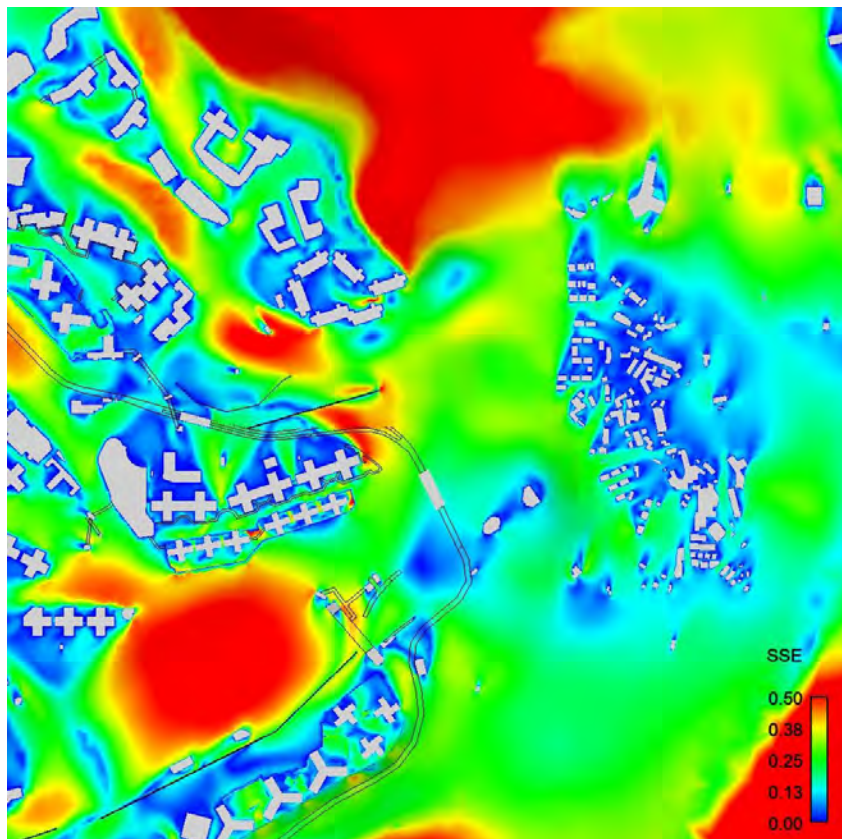


Figure C-7 Contour Plot of VR under SSE Wind

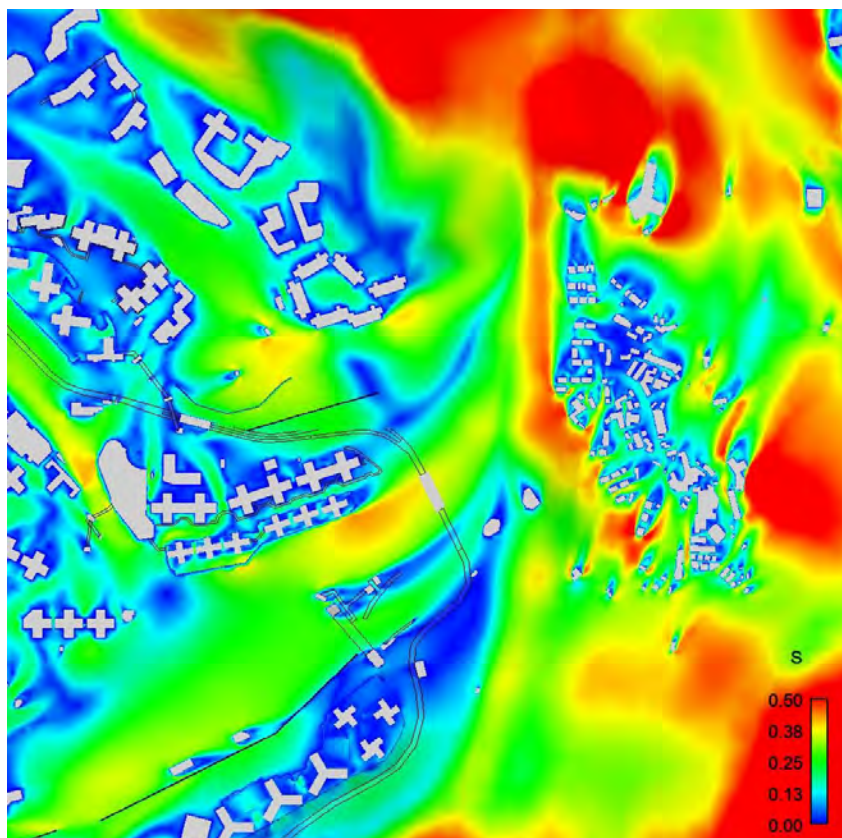


Figure C-8 Contour Plot of VR under S Wind

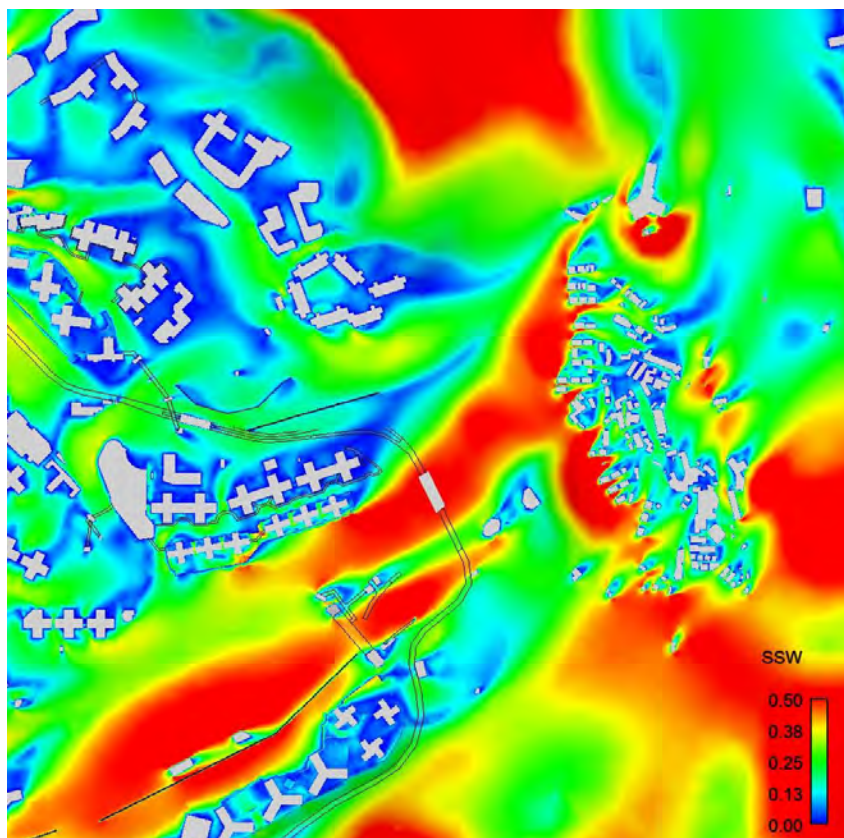


Figure C-9 Contour Plot of VR under SSW Wind

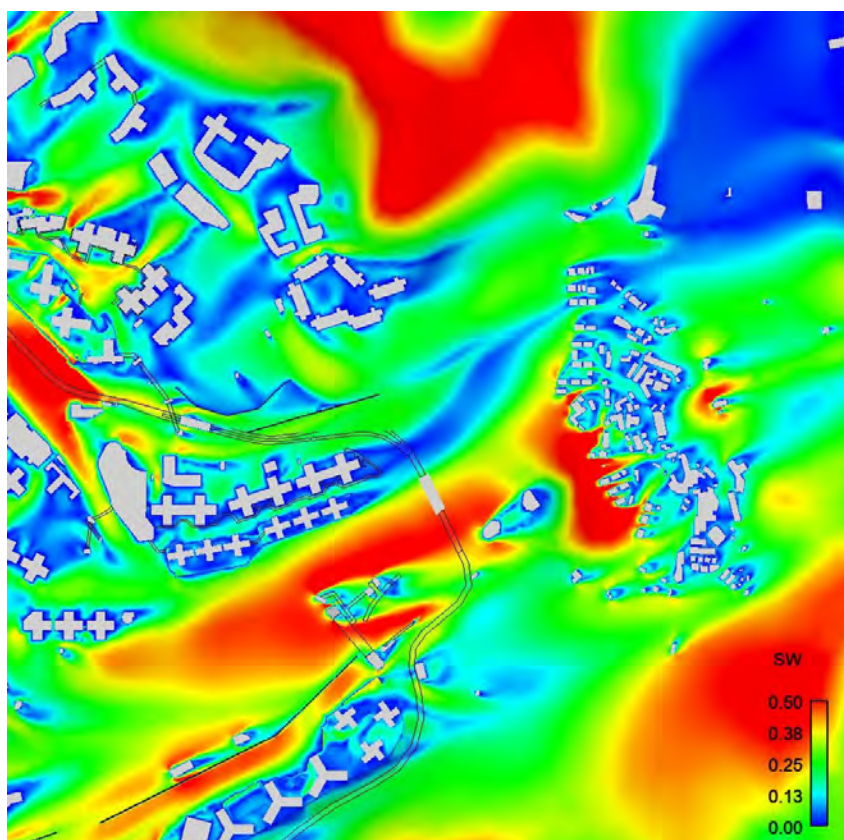


Figure C-10 Contour Plot of VR under SW Wind

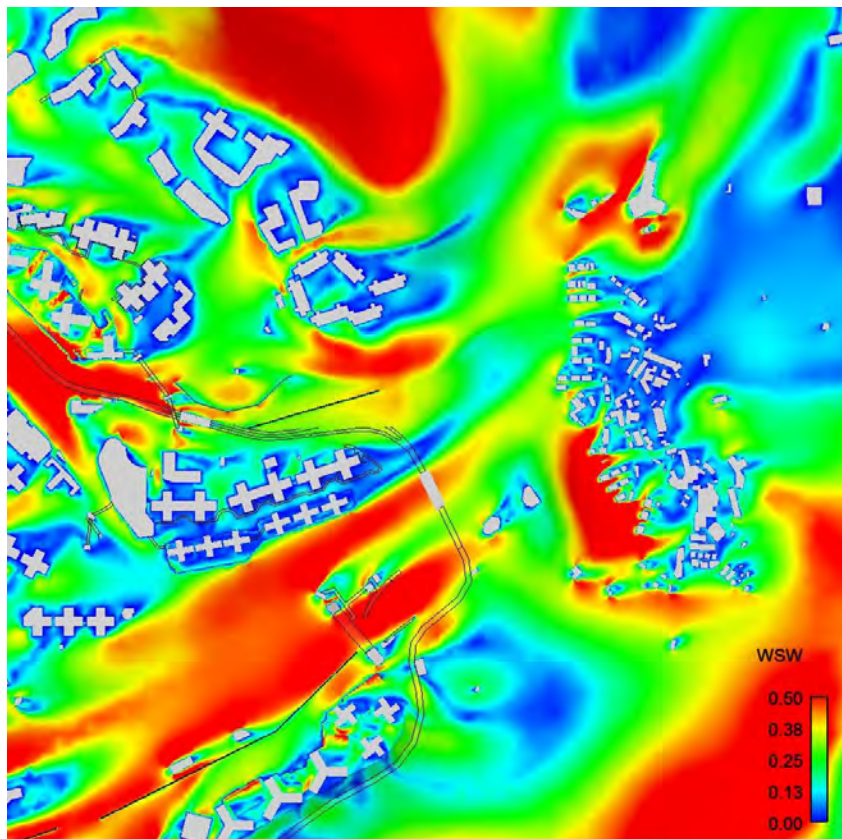


Figure C-11 Contour Plot of VR under WSW Wind

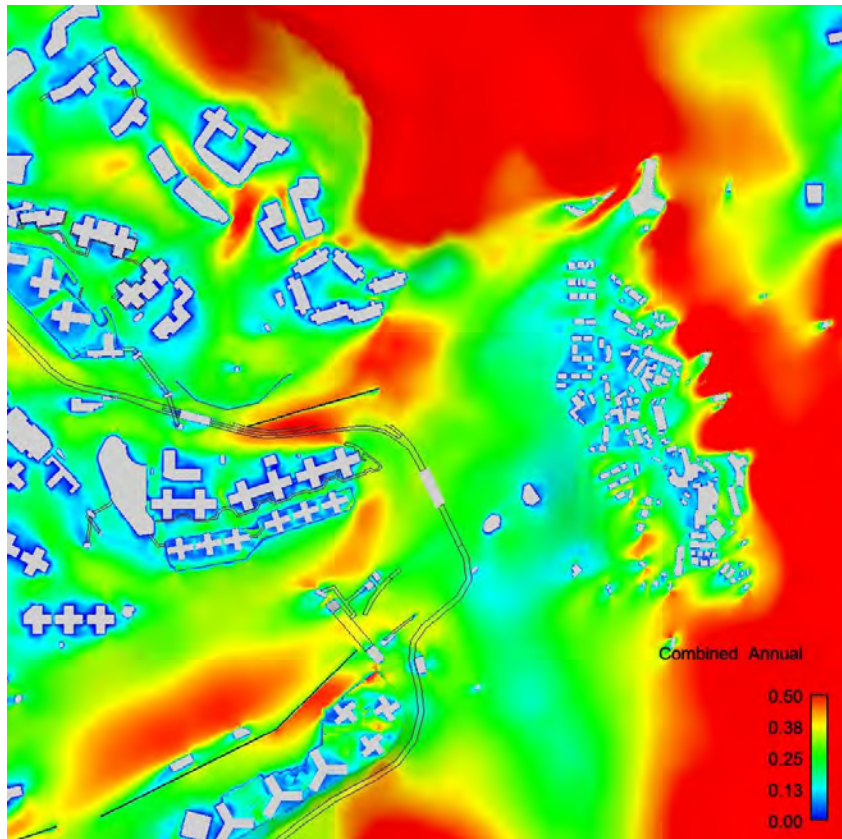


Figure C-12 Annual Weighted Average Contour Plot of VR

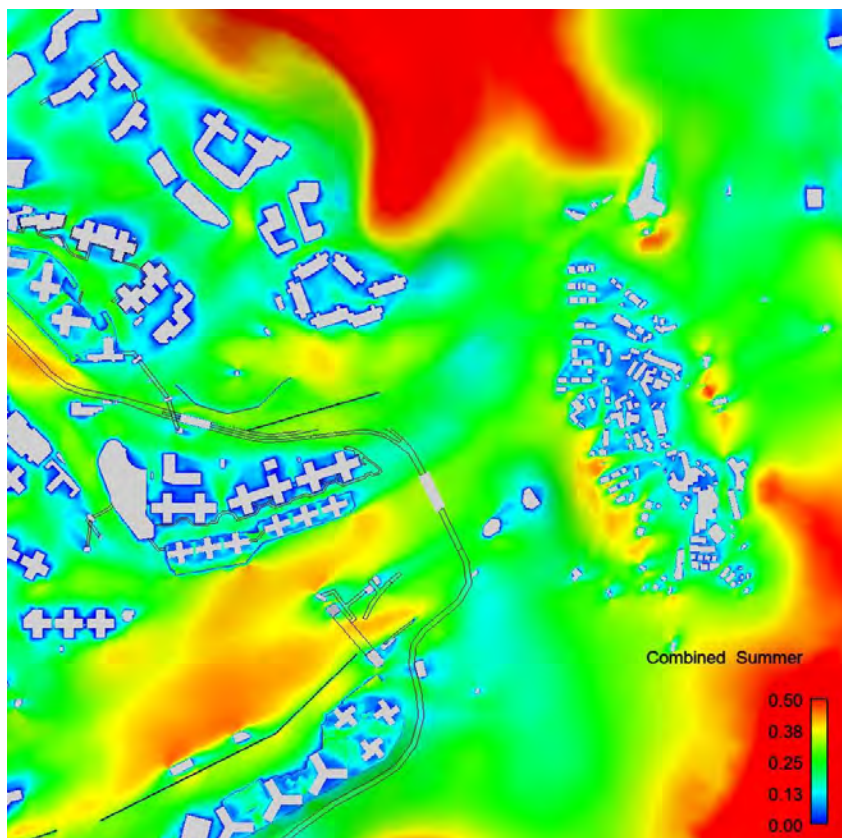


Figure C-13 Summer Weighted Average Contour Plot of VR

C.2 Indicative Development Scheme – Assessment Area

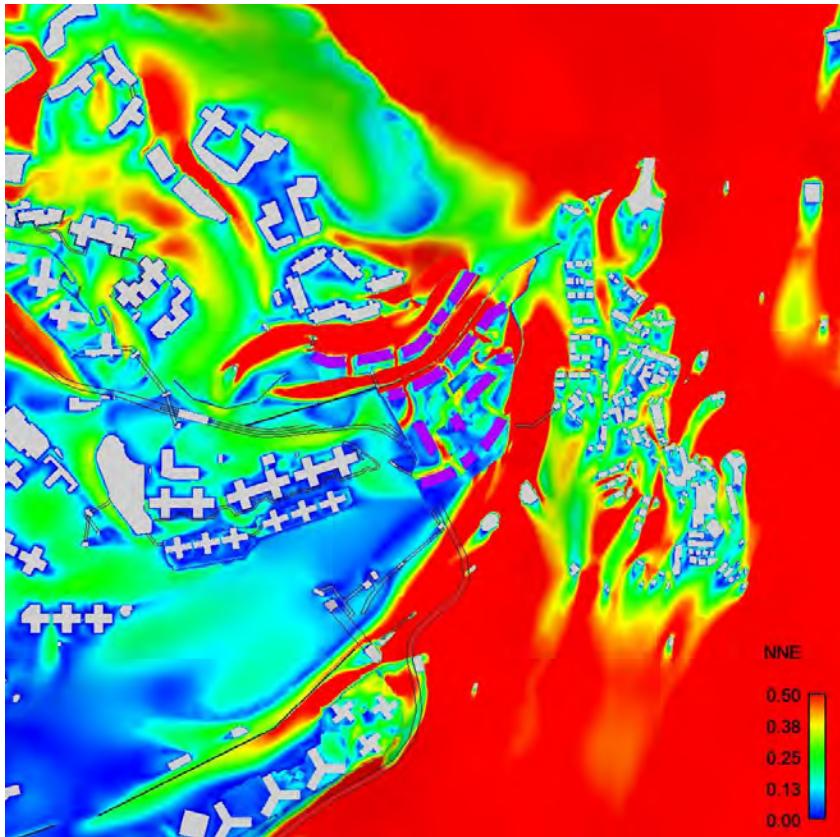


Figure C-14 Contour Plot of VR under NNE Wind

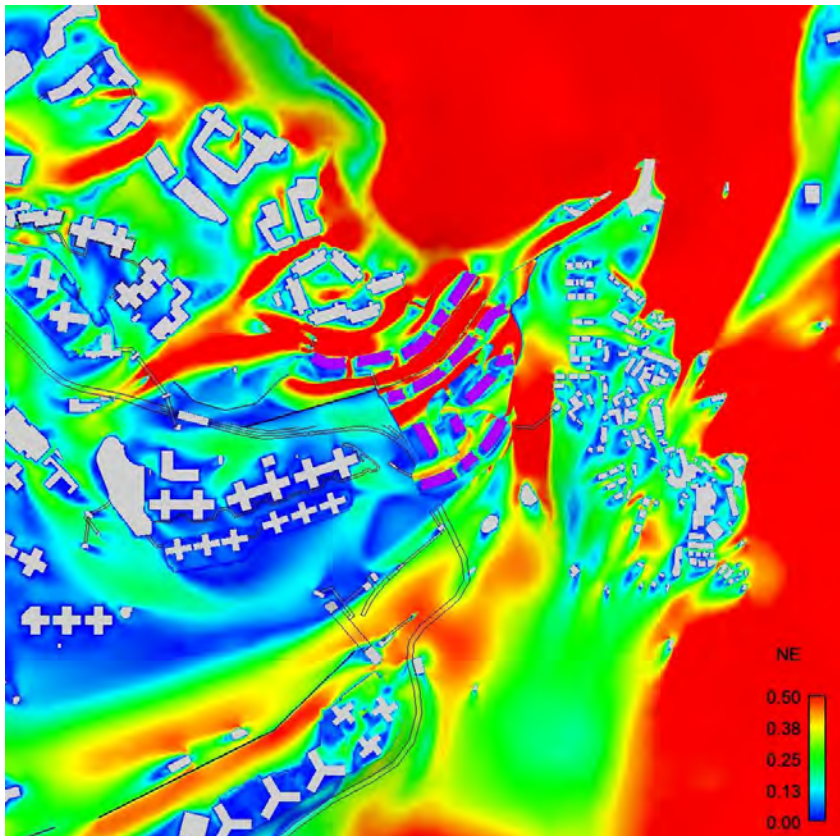


Figure C-15 Contour Plot of VR under NE Wind

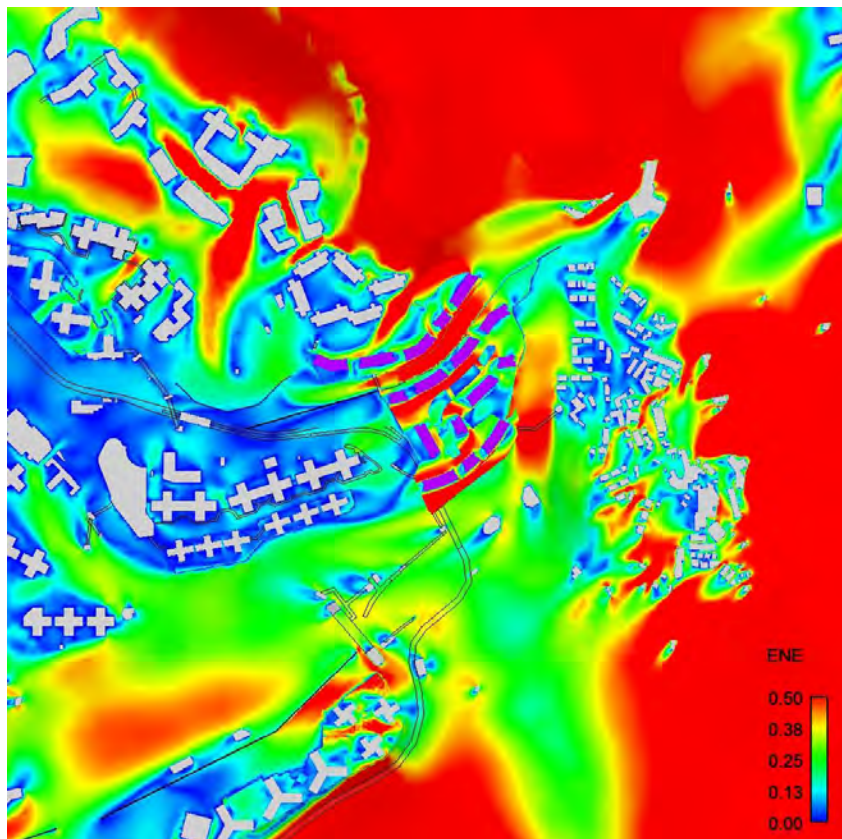


Figure C-16 Contour Plot of VR under ENE Wind

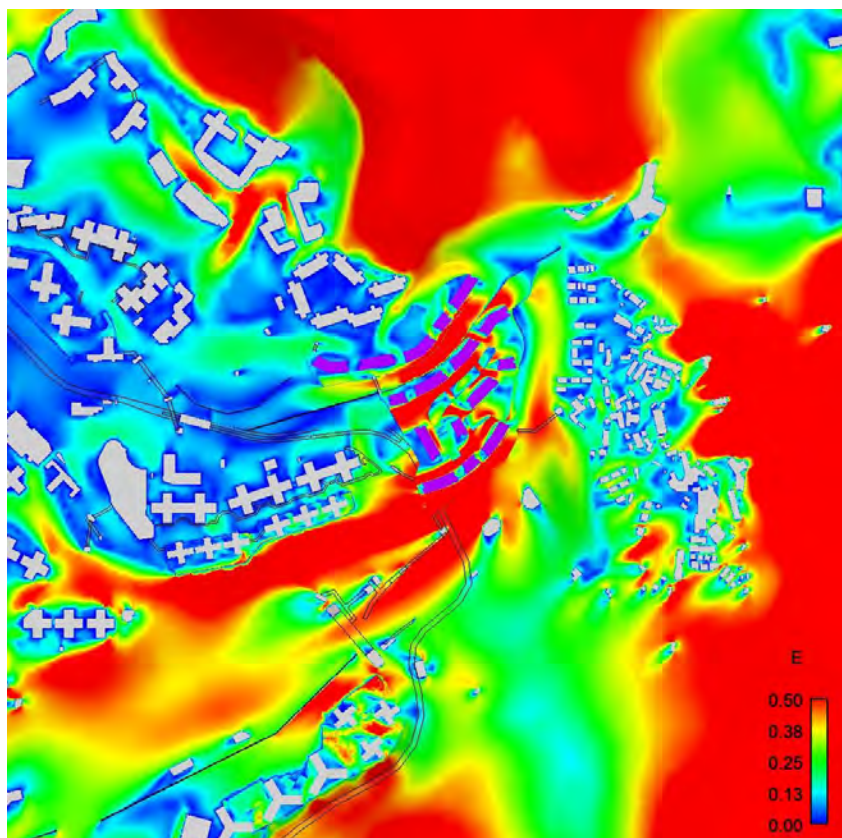


Figure C-17 Contour Plot of VR under E Wind

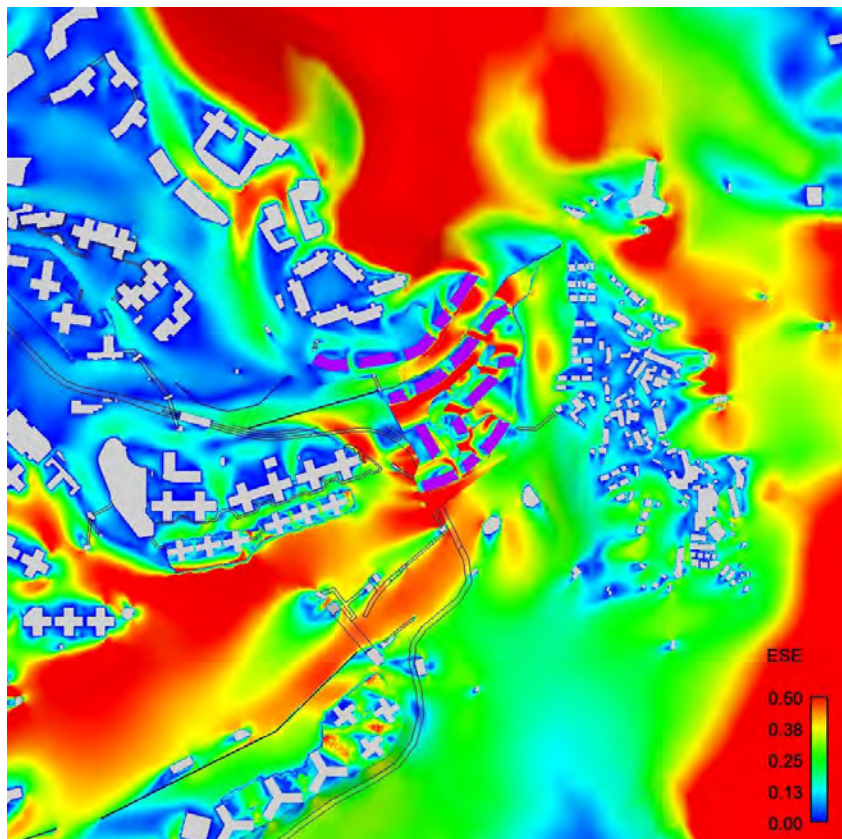


Figure C-18 Contour Plot of VR under ESE Wind

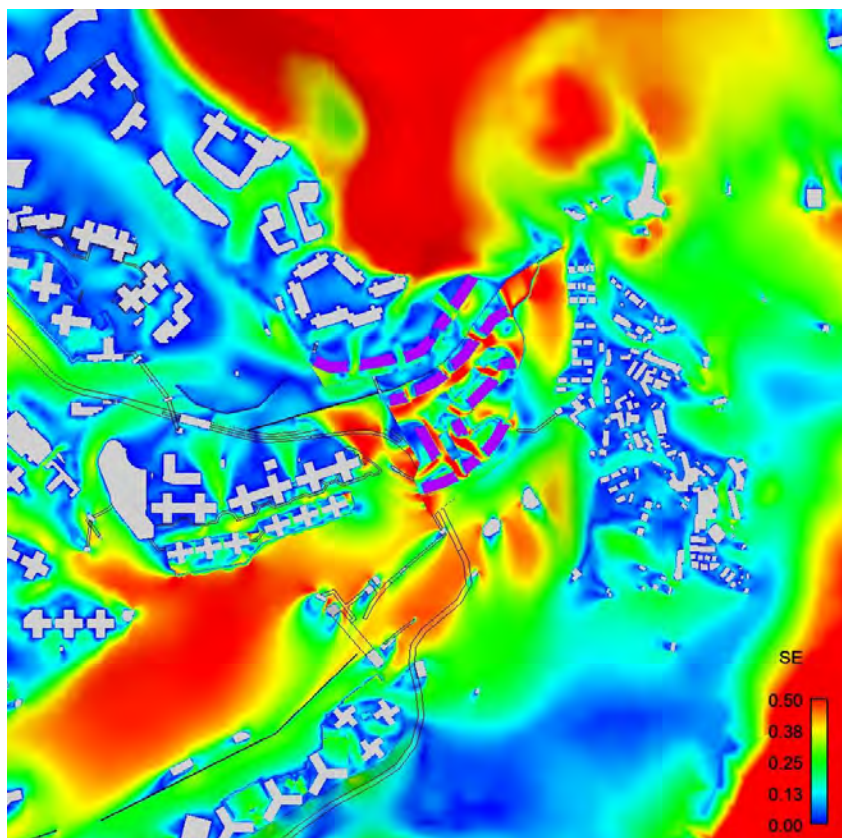


Figure C-19 Contour Plot of VR under SE Wind

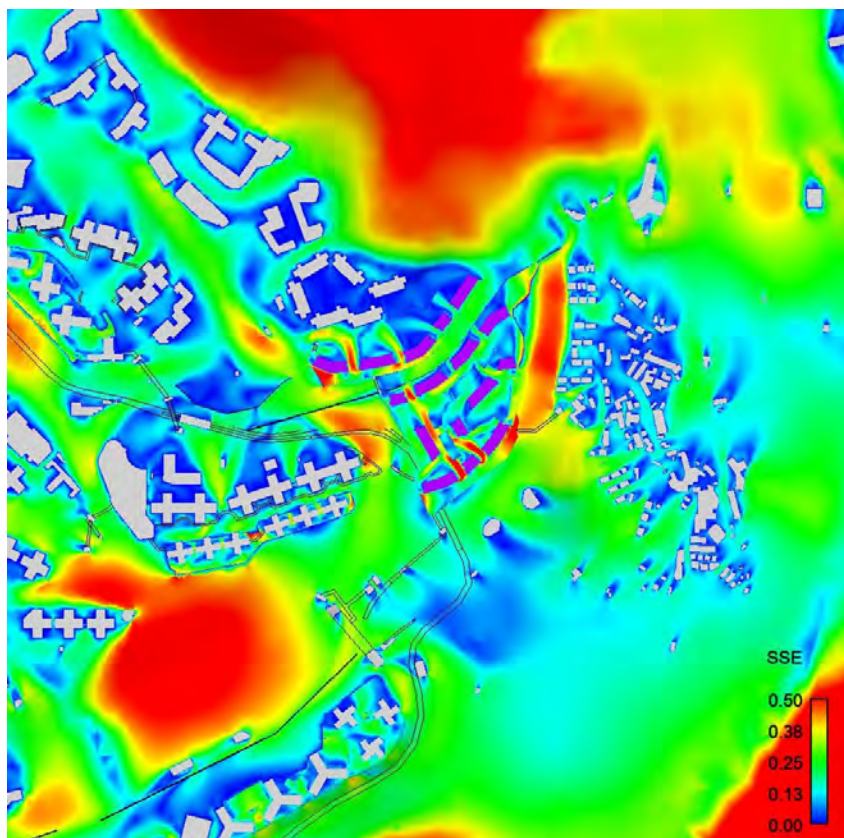


Figure C-20 Contour Plot of VR under SSE Wind

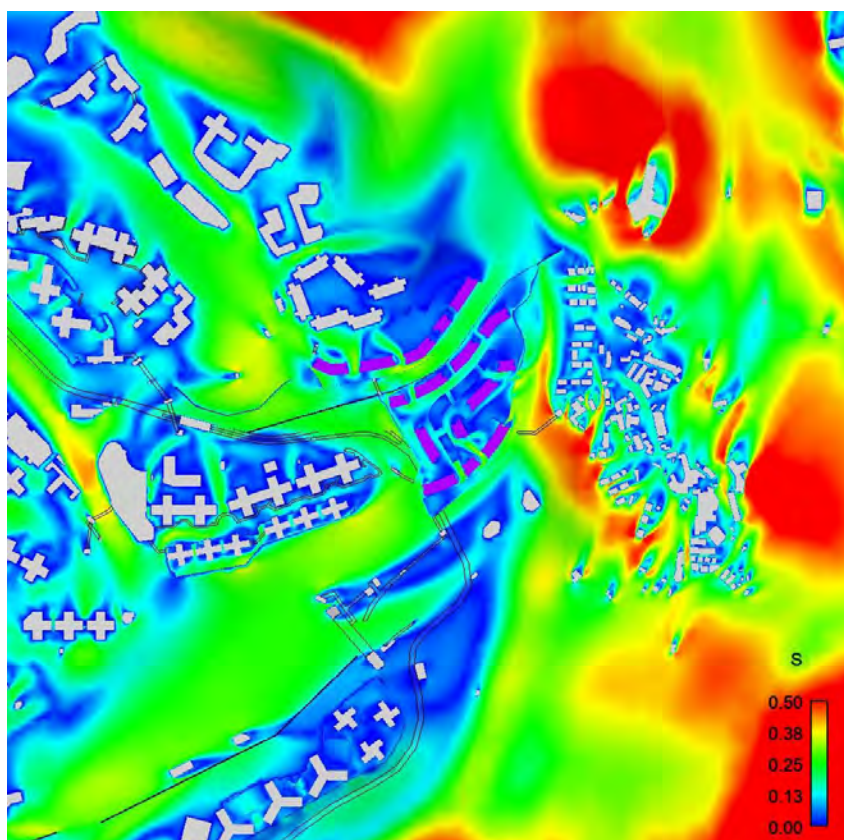


Figure C-21 Contour Plot of VR under S Wind

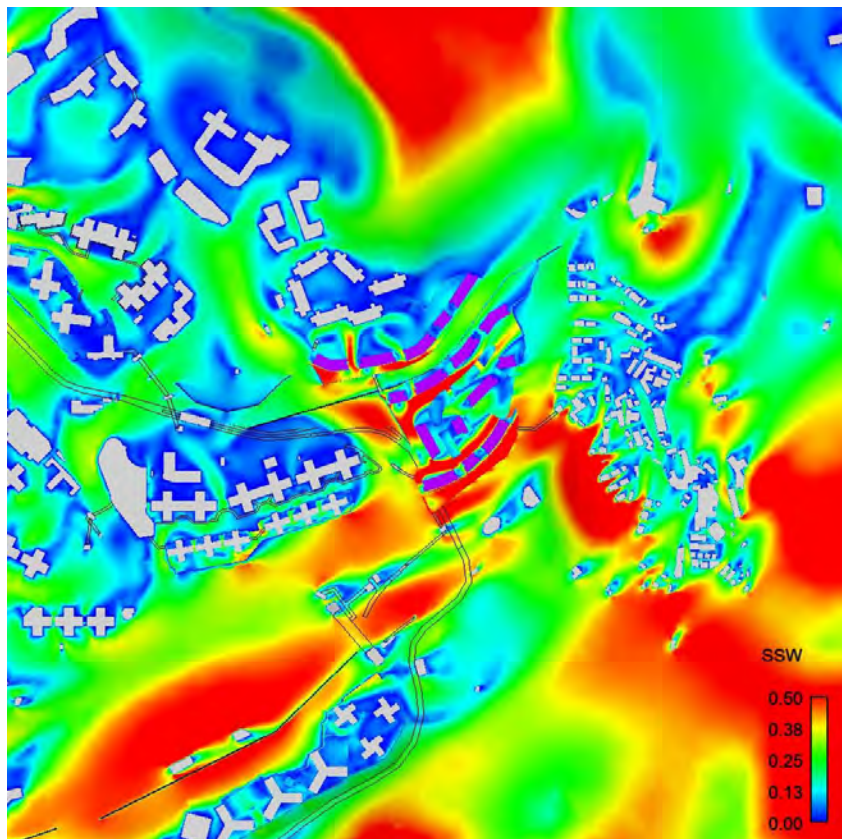


Figure C-22 Contour Plot of VR under SSW Wind

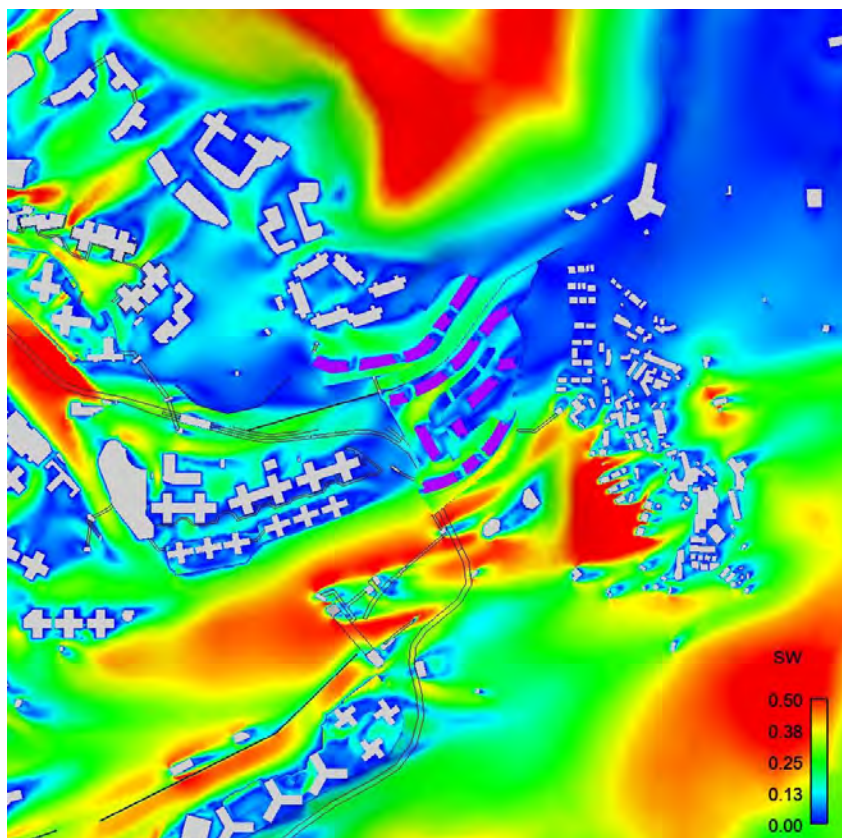


Figure C-23 Contour Plot of VR under SW Wind

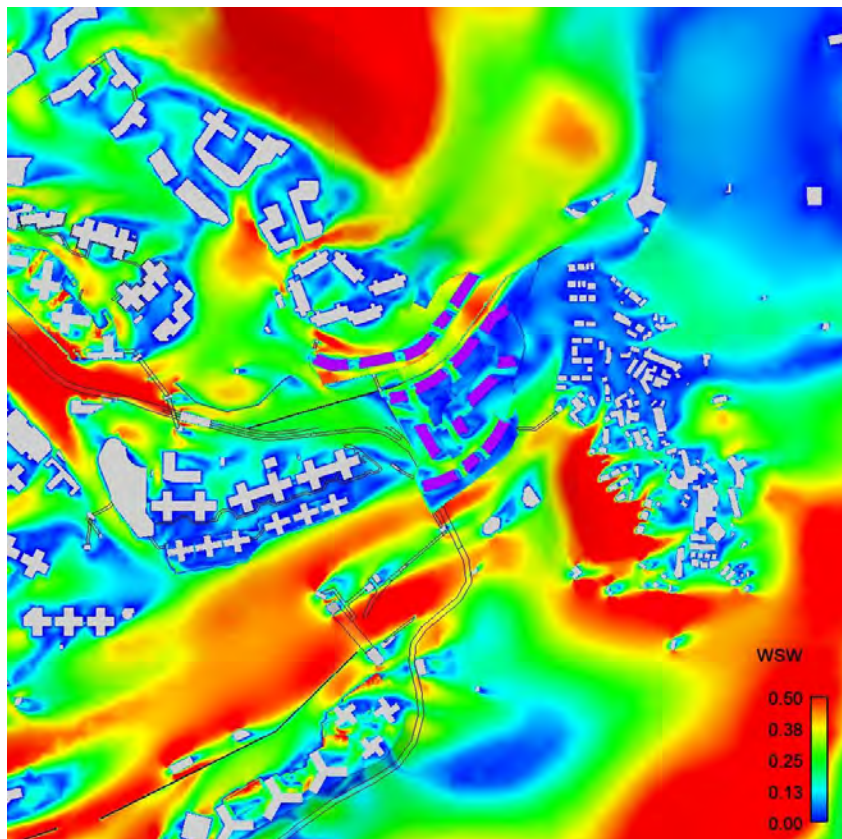


Figure C-24 Contour Plot of VR under WSW Wind

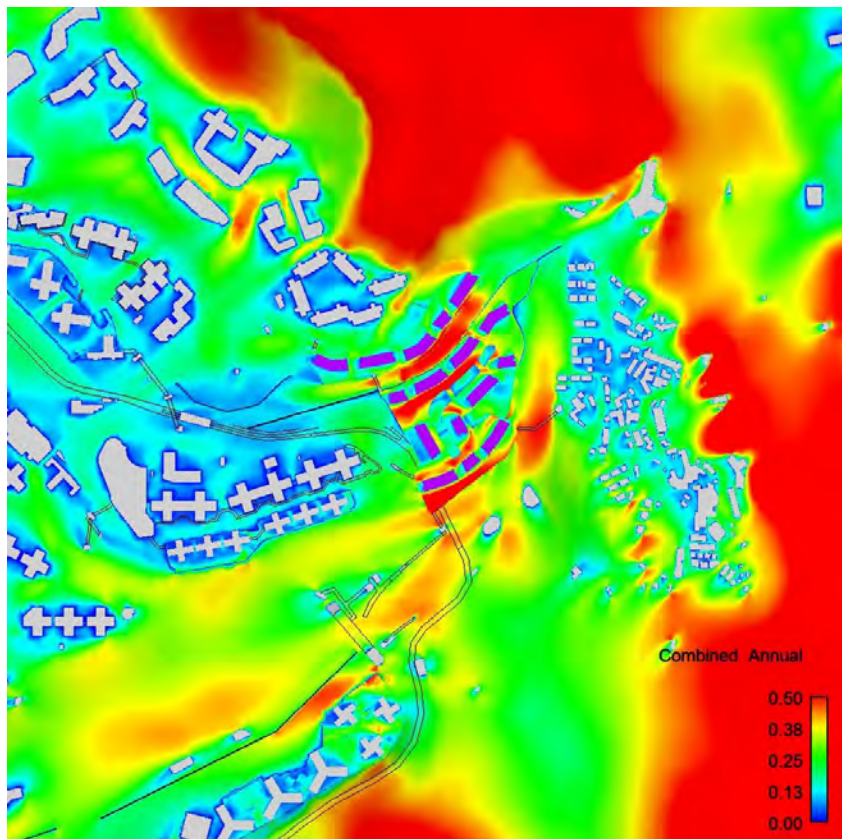


Figure C-25 Annual Weighted Average Contour Plot of VR

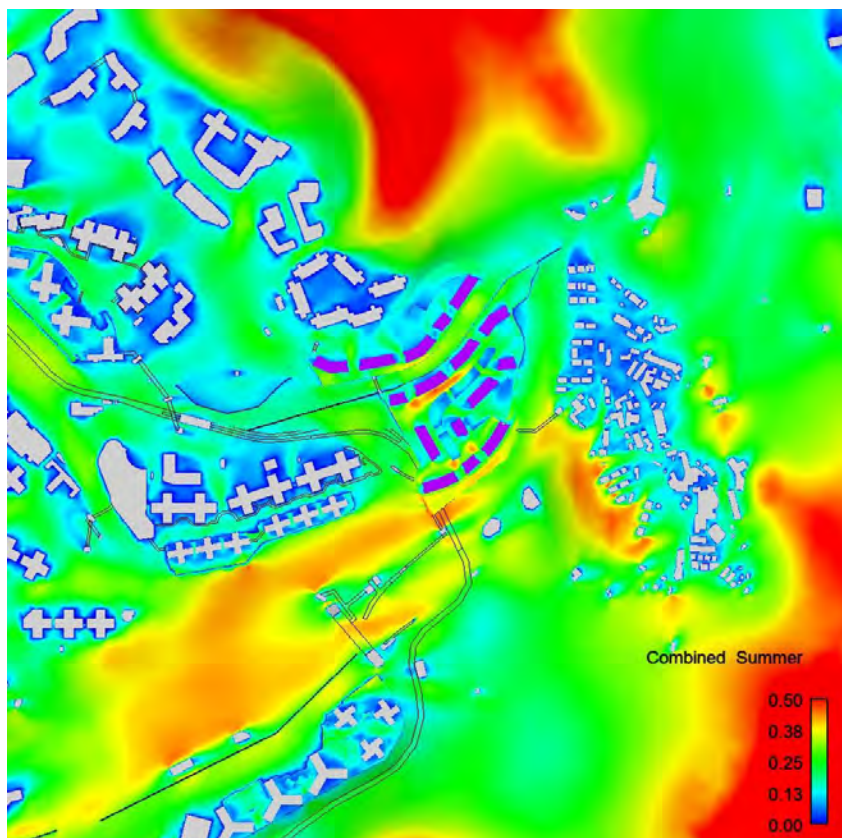


Figure C-26 Summer Weighted Average Contour Plot of VR

C.3 Baseline Scheme – Domain Area

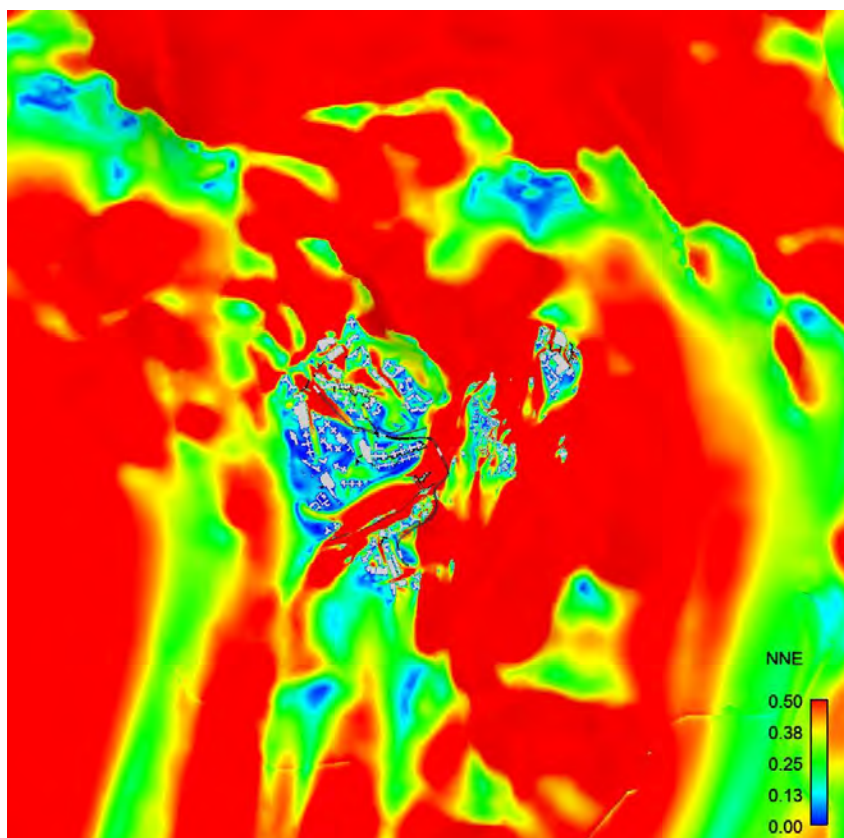


Figure C-27 Contour Plot of VR under NNE Wind

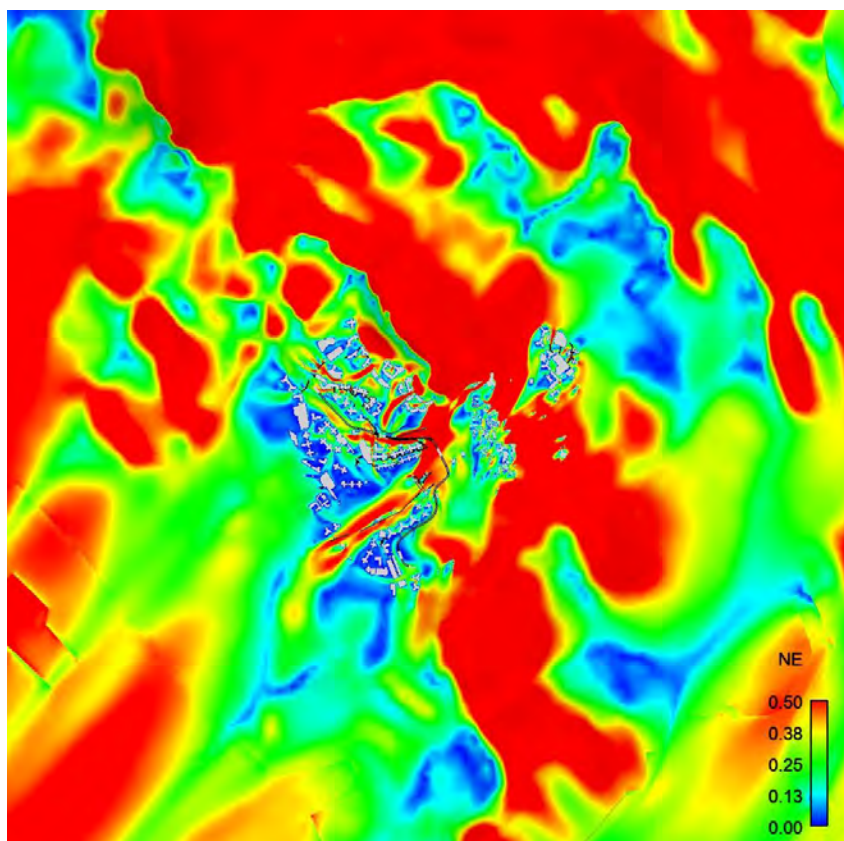


Figure C-28 Contour Plot of VR under NE Wind

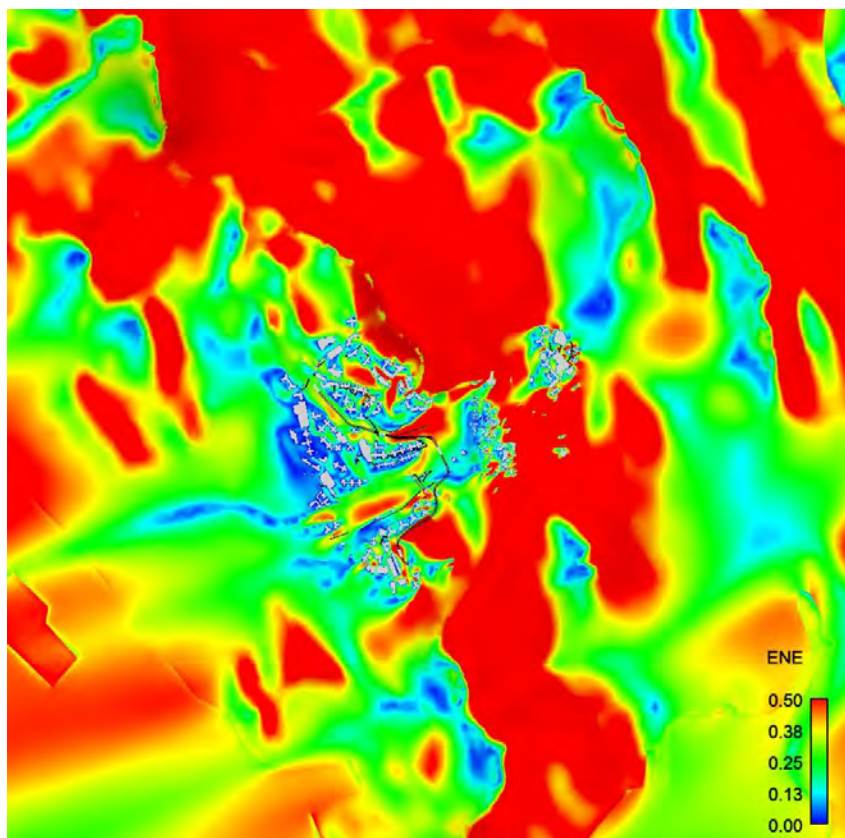


Figure C-29 Contour Plot of VR under ENE Wind

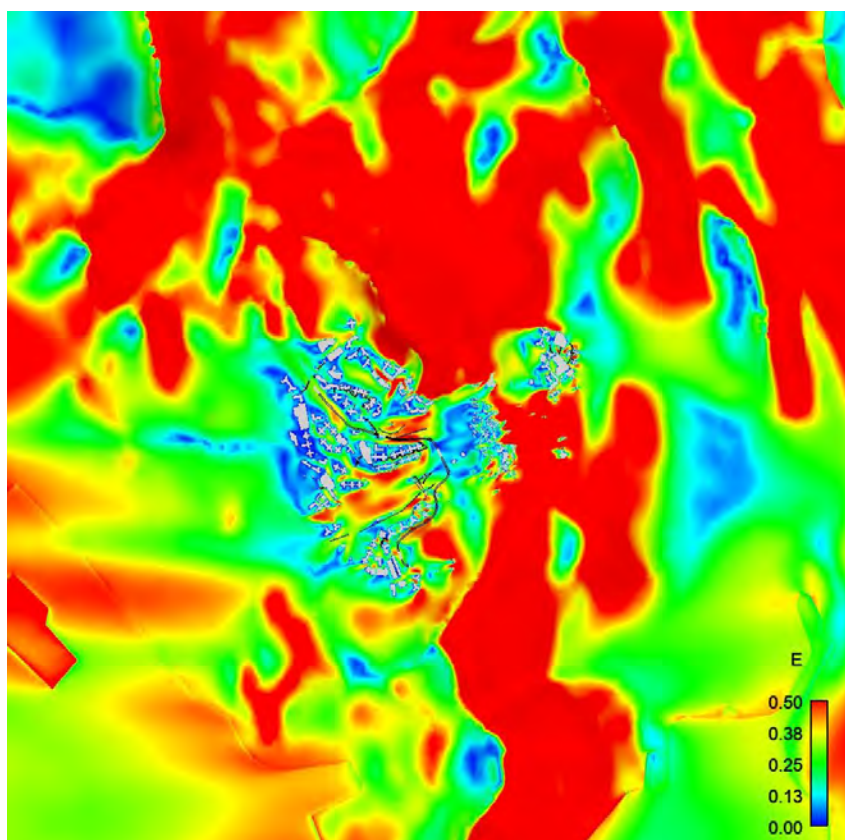


Figure C-30 Contour Plot of VR under E Wind

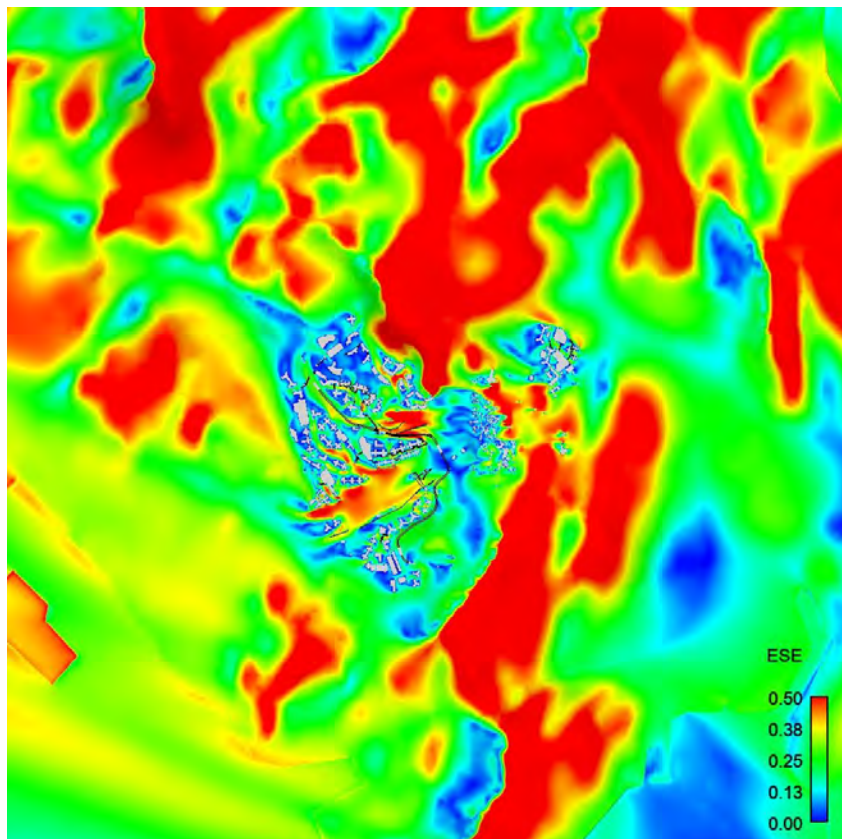


Figure C-31 Contour Plot of VR under ESE Wind

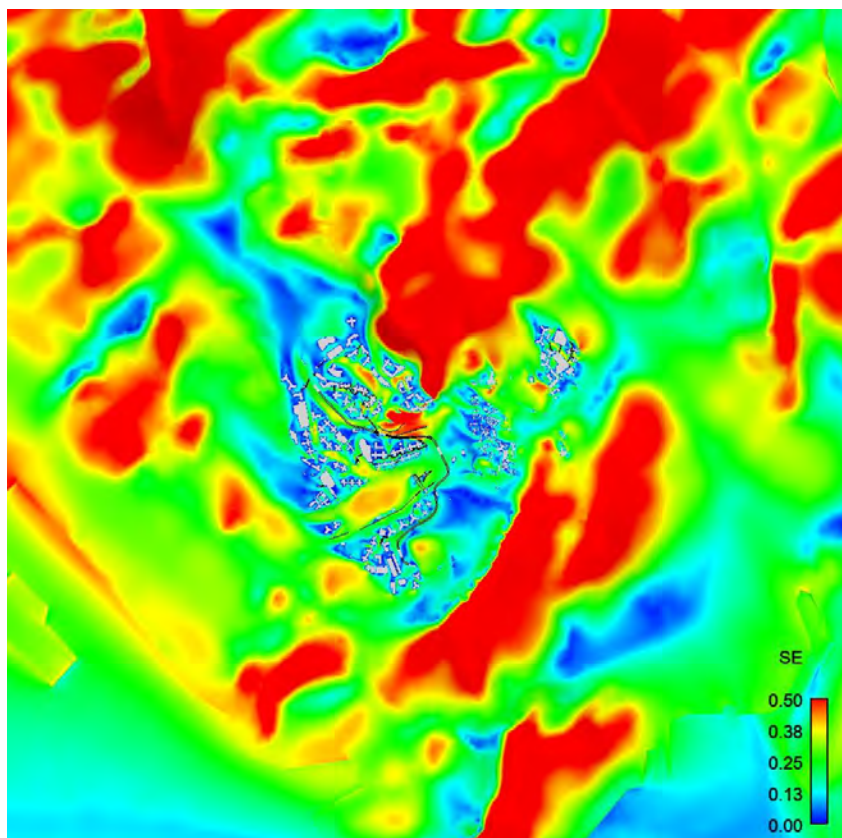


Figure C-32 Contour Plot of VR under SE Wind

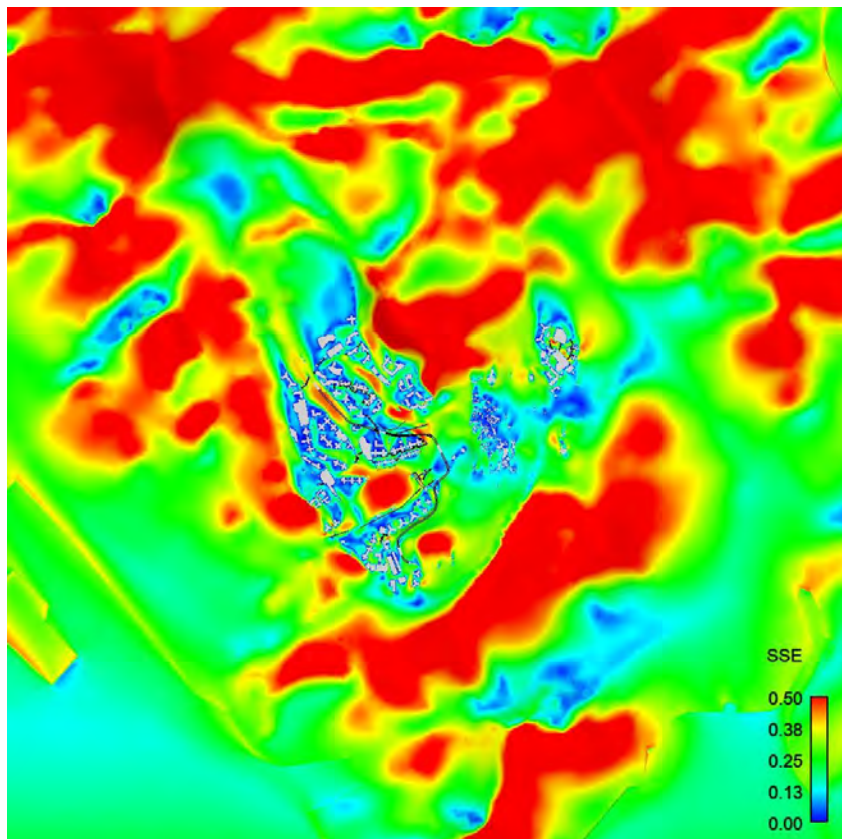


Figure C-33 Contour Plot of VR under SSE Wind

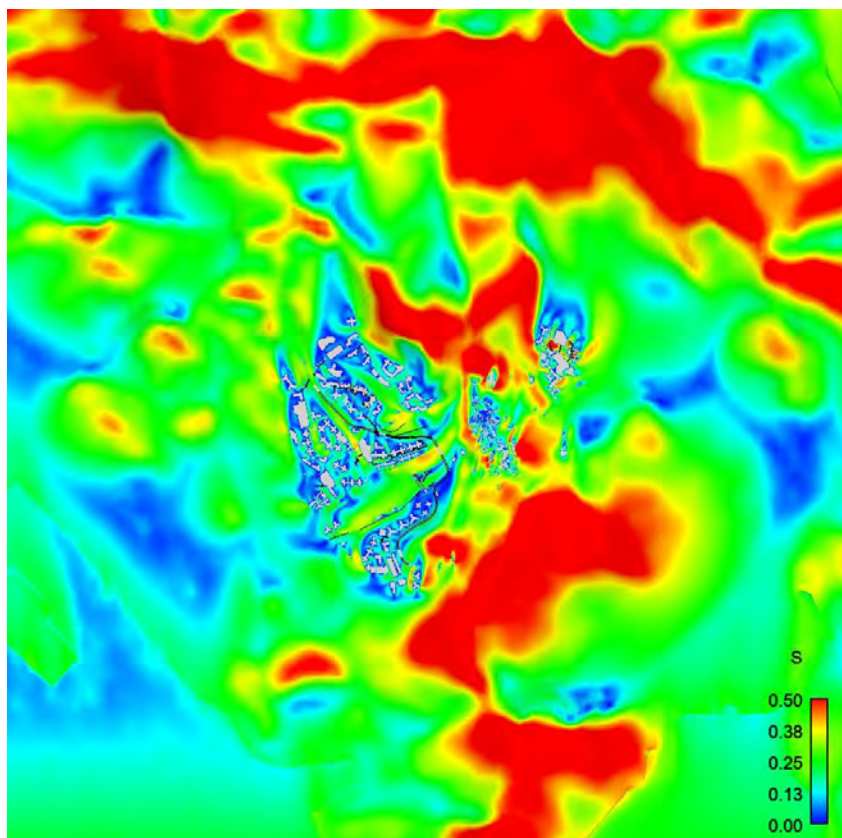


Figure C-34 Contour Plot of VR under S Wind

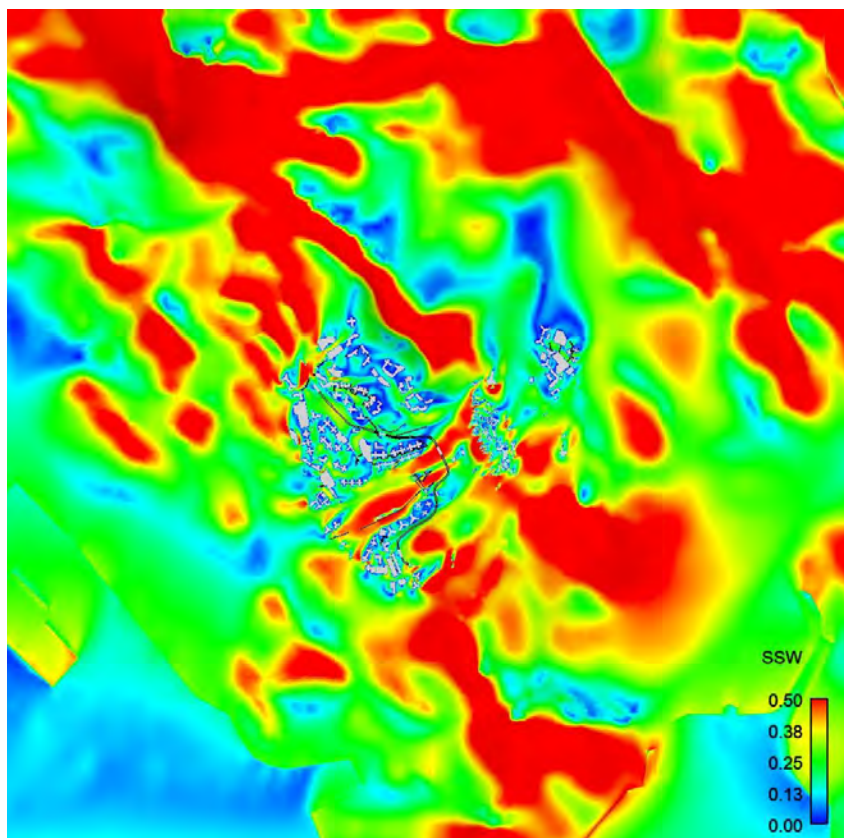


Figure C-35 Contour Plot of VR under SSW Wind

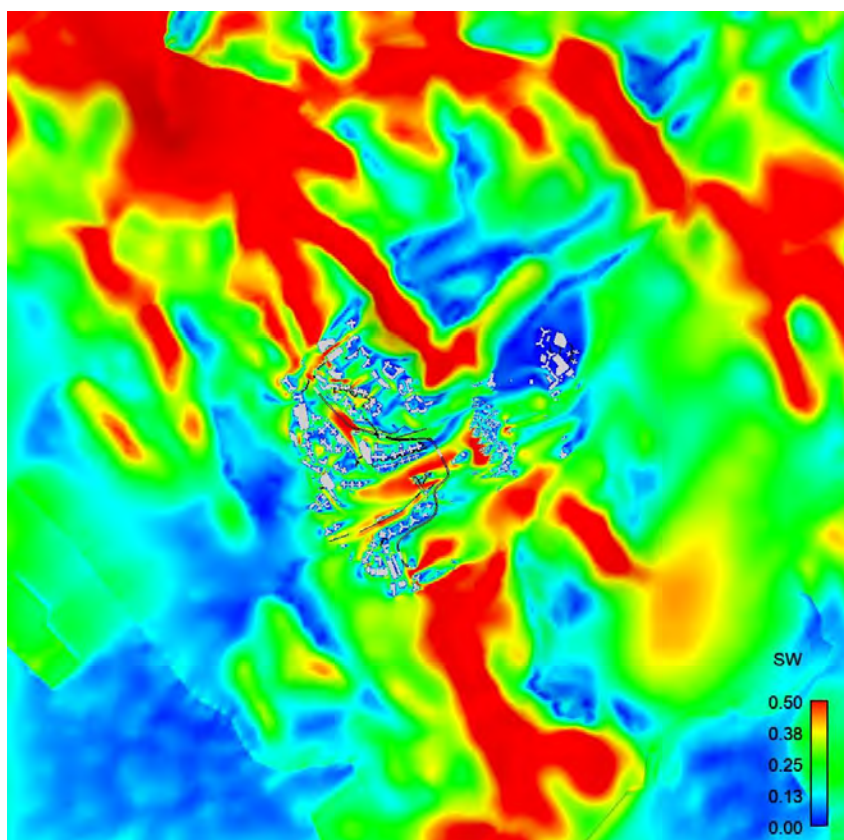


Figure C-36 Contour Plot of VR under SW Wind

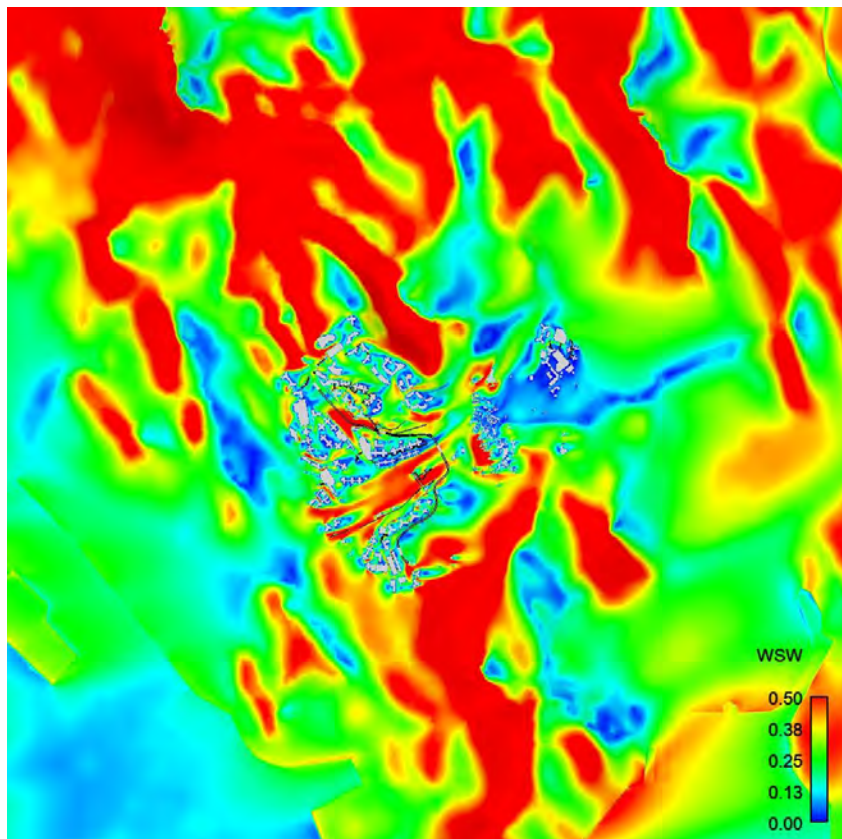


Figure C-37 Contour Plot of VR under WSW Wind

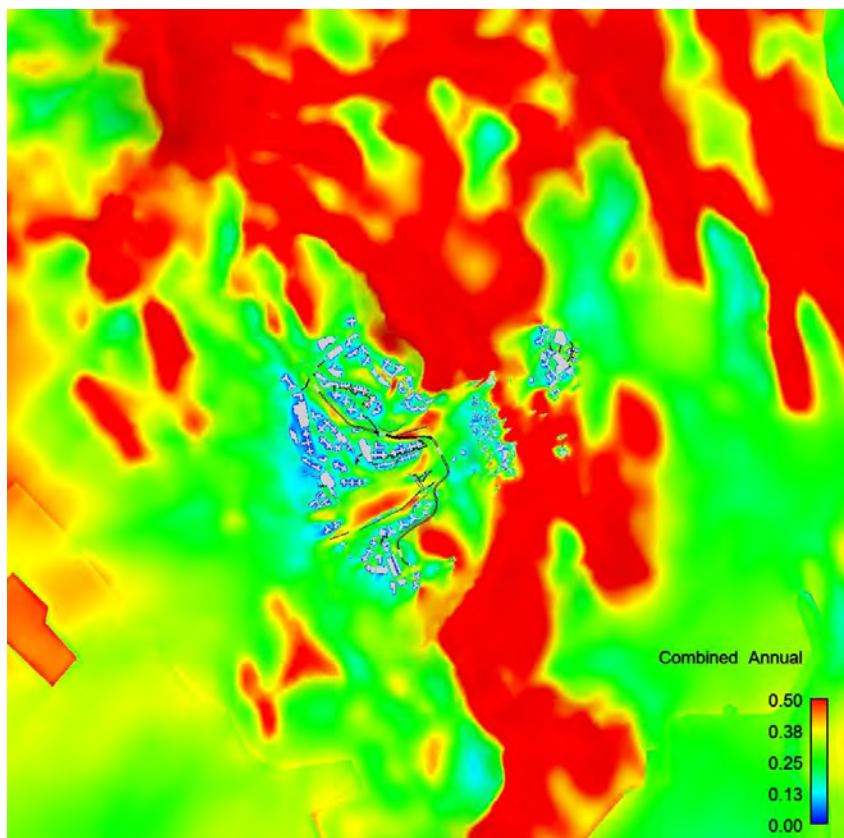


Figure C-38 Annual Weighted Average Contour Plot of VR

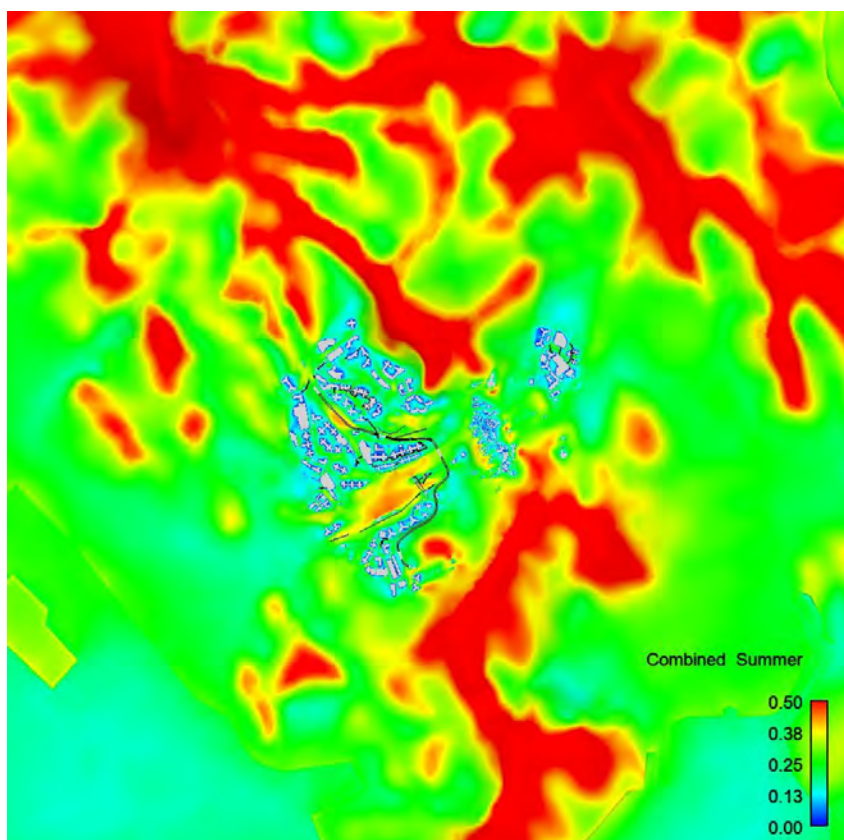


Figure C-39 Summer Weighted Average Contour Plot of VR

C.4 Indicative Development Scheme – Domain Area

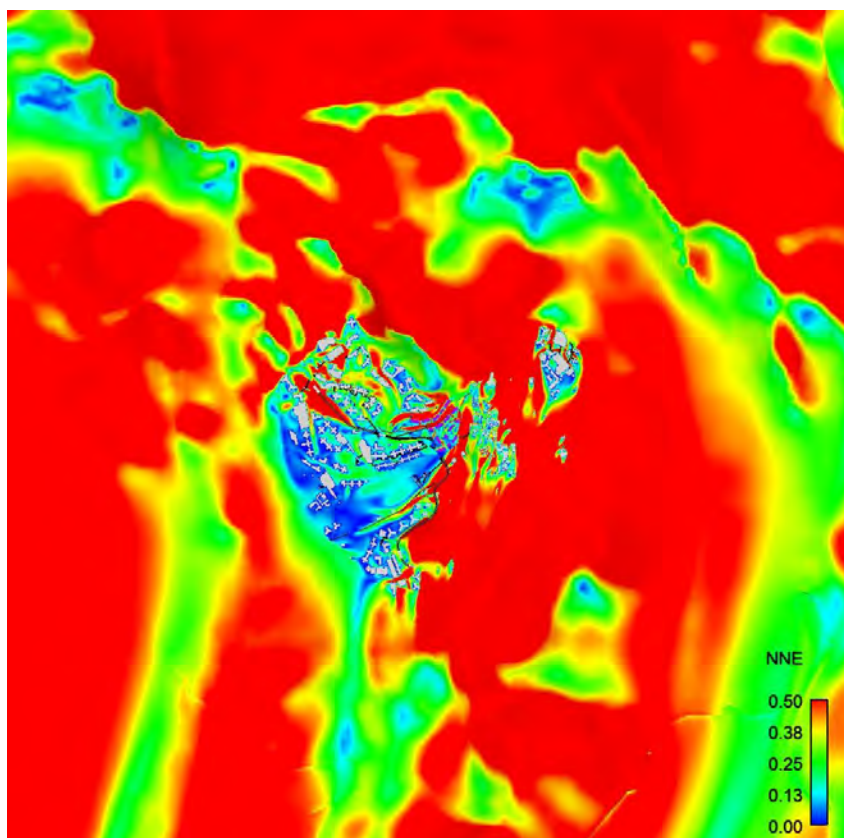


Figure C-40 Contour Plot of VR under NNE Wind

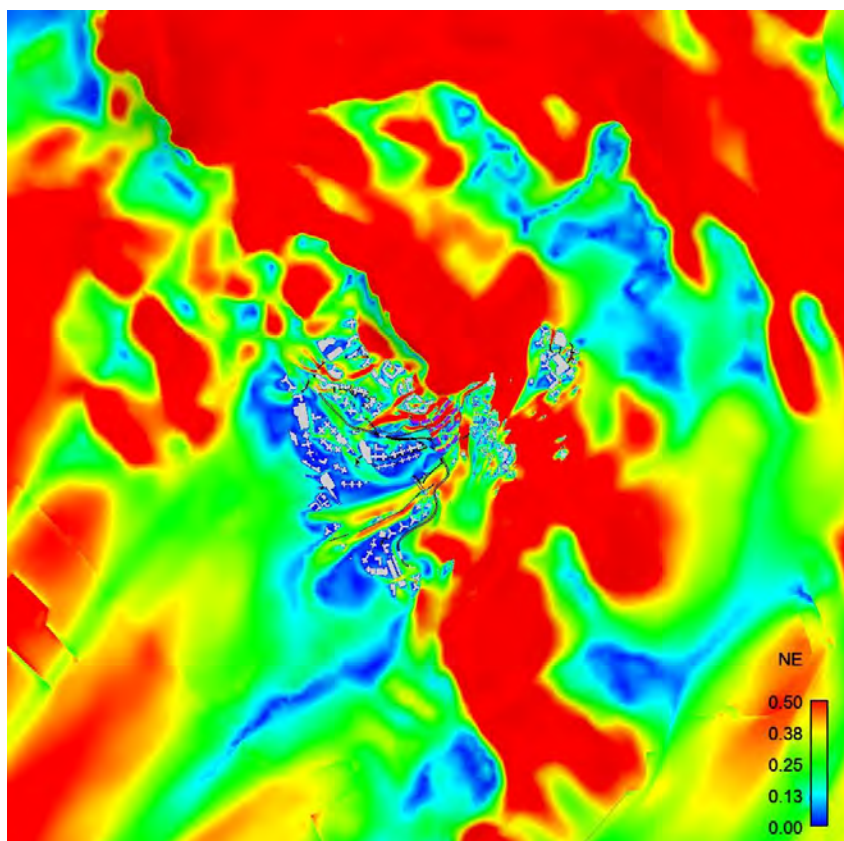


Figure C-41 Contour Plot of VR under NE Wind

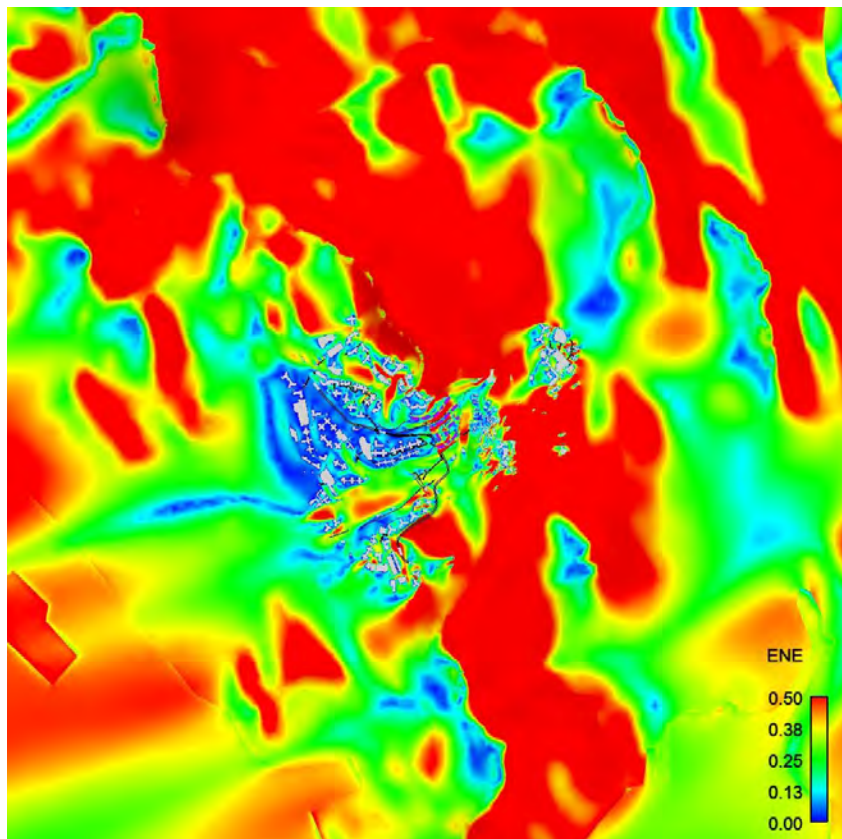


Figure C-42 Contour Plot of VR under ENE Wind

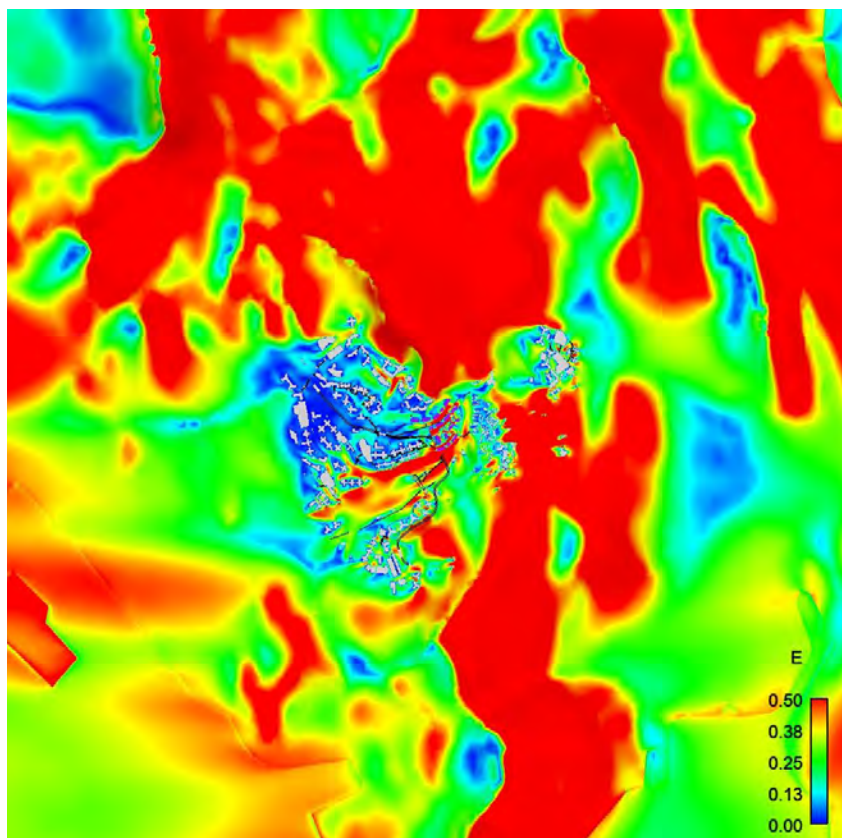


Figure C-43 Contour Plot of VR under E Wind

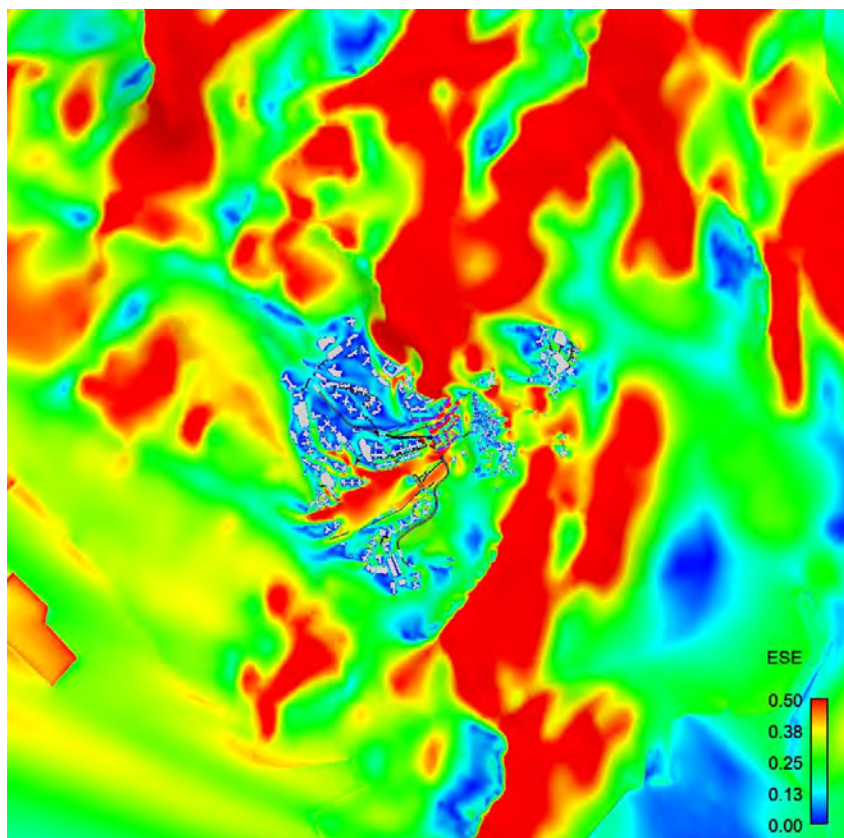


Figure C-44 Contour Plot of VR under ESE Wind

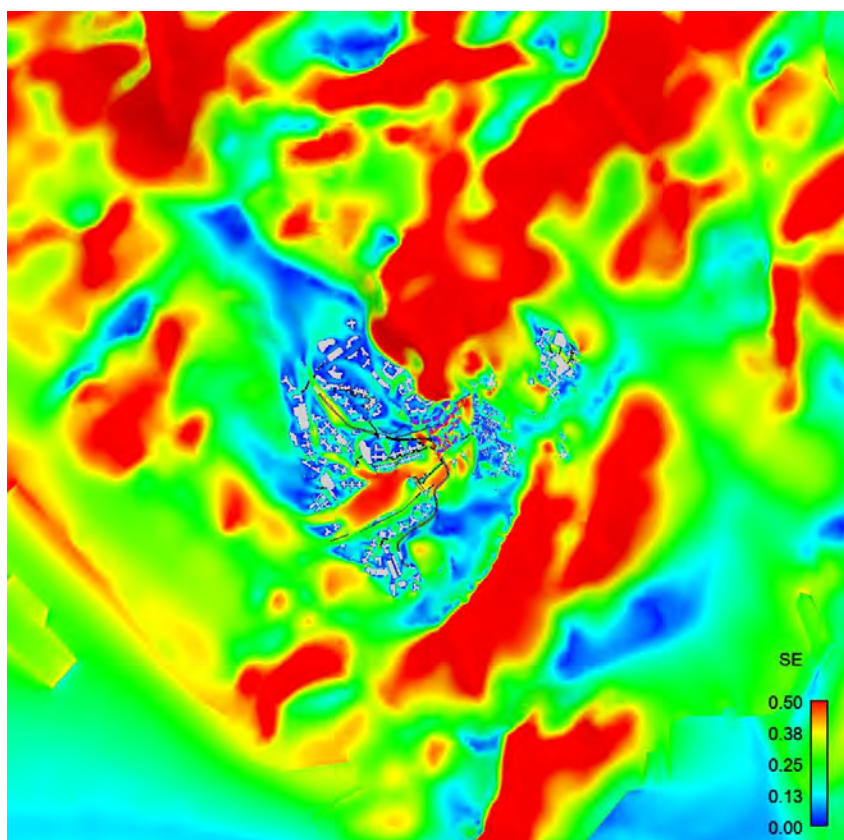


Figure C-45 Contour Plot of VR under SE Wind

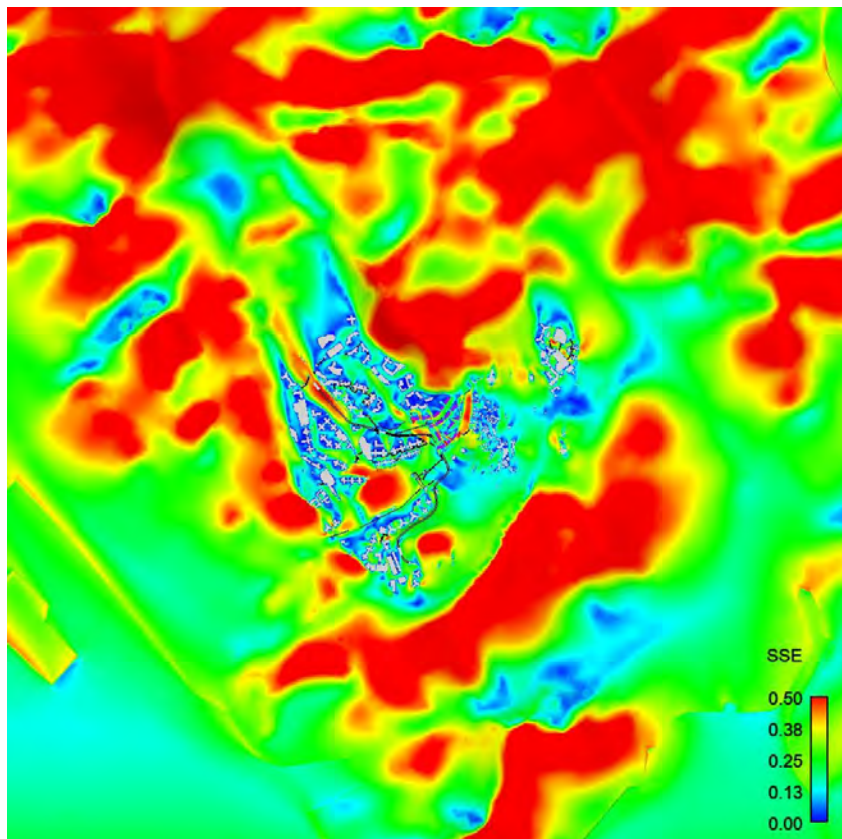


Figure C-46 Contour Plot of VR under SSE Wind

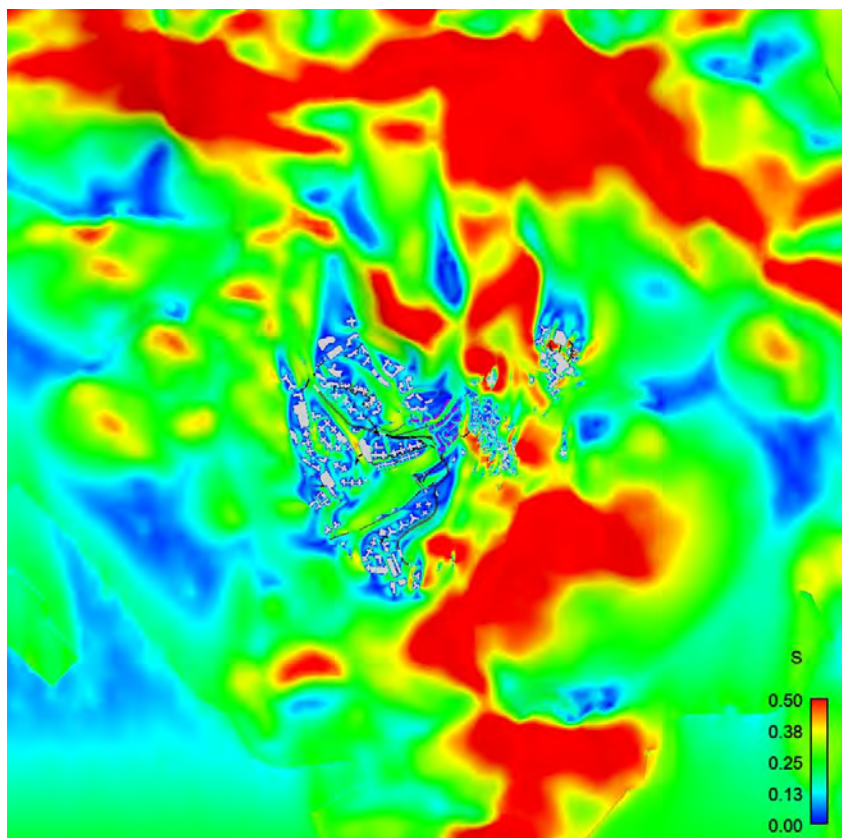


Figure C-47 Contour Plot of VR under S Wind

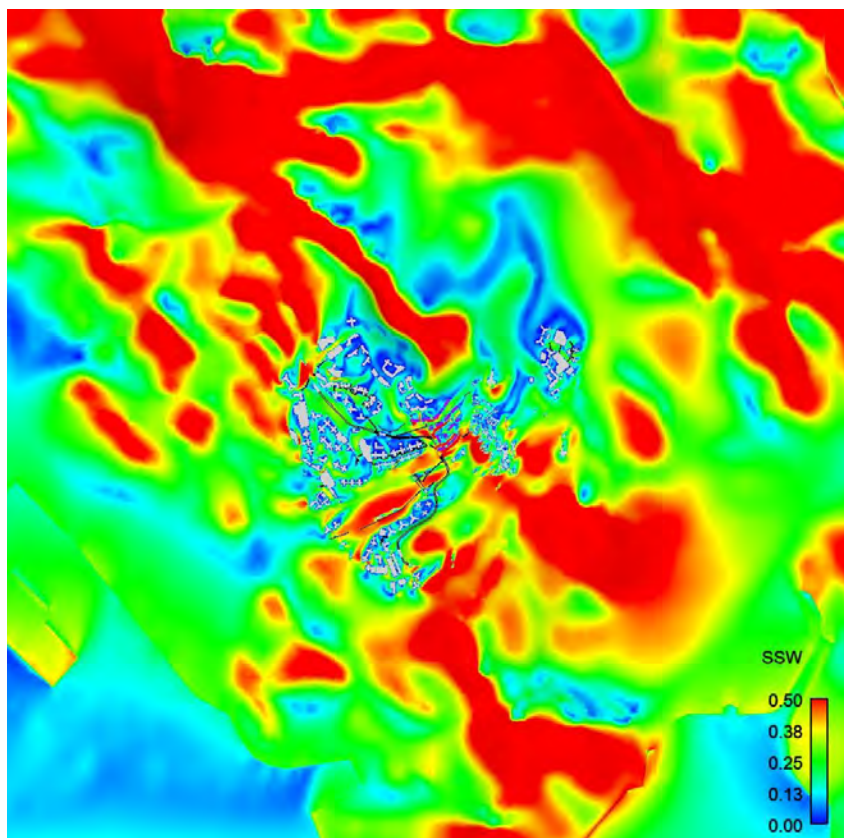


Figure C-48 Contour Plot of VR under SSW Wind

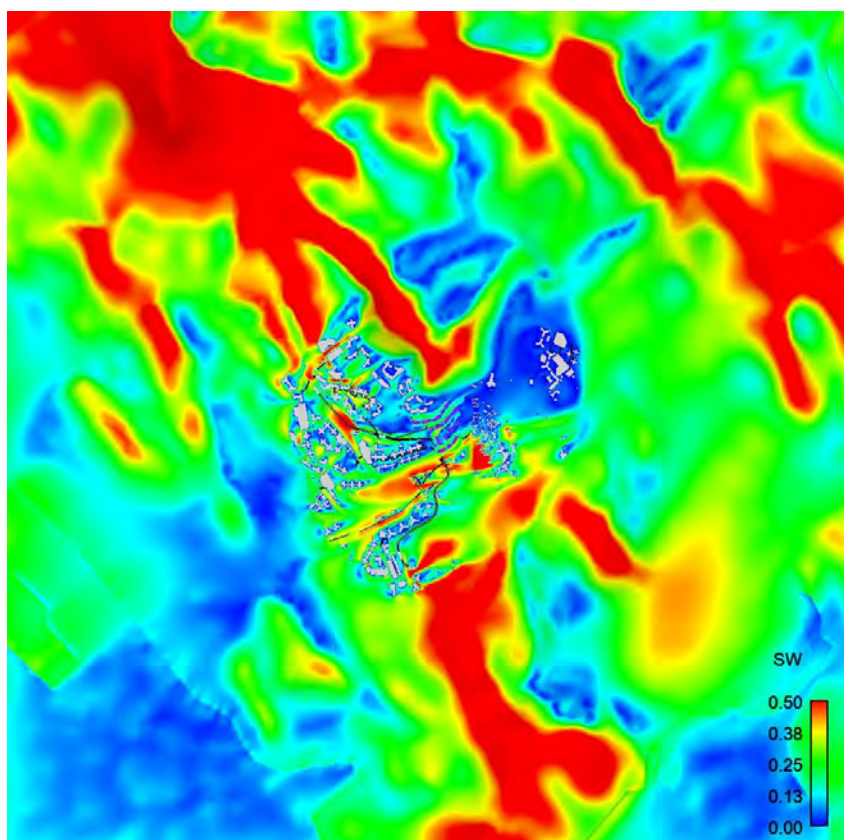


Figure C-49 Contour Plot of VR under SW Wind

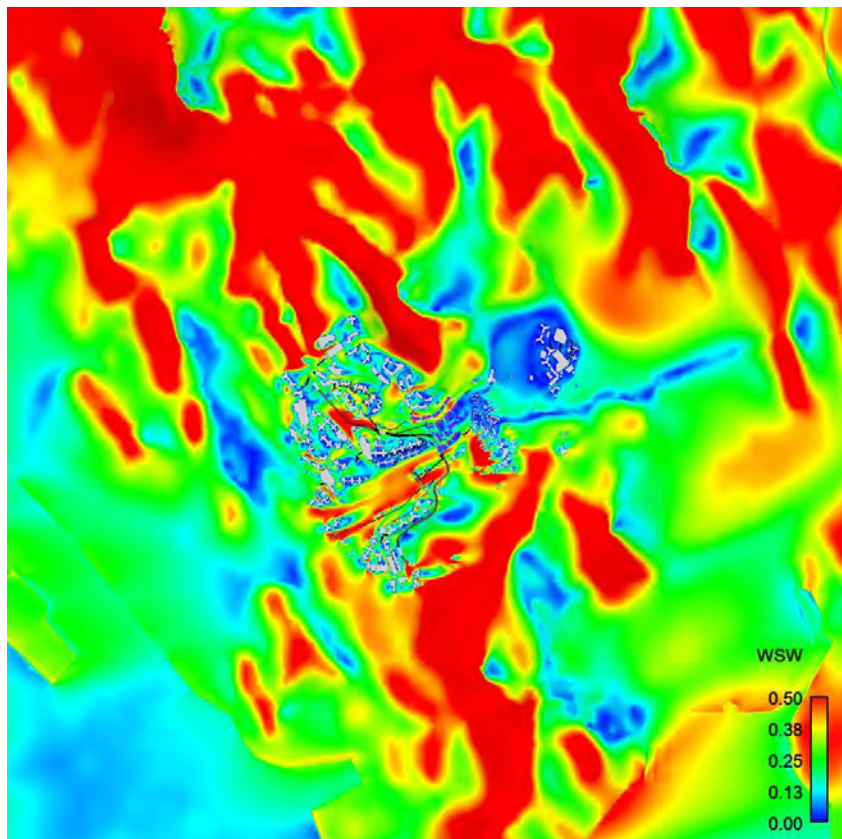


Figure C-50 Contour Plot of VR under WSW Wind

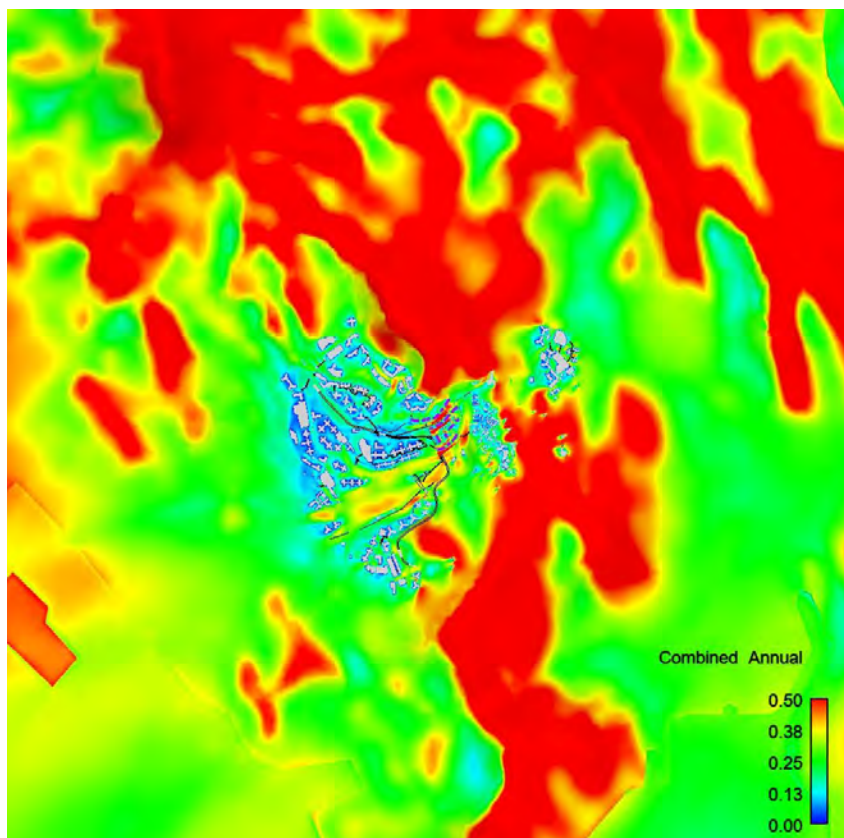


Figure C-51 Annual Weighted Average Contour Plot of VR

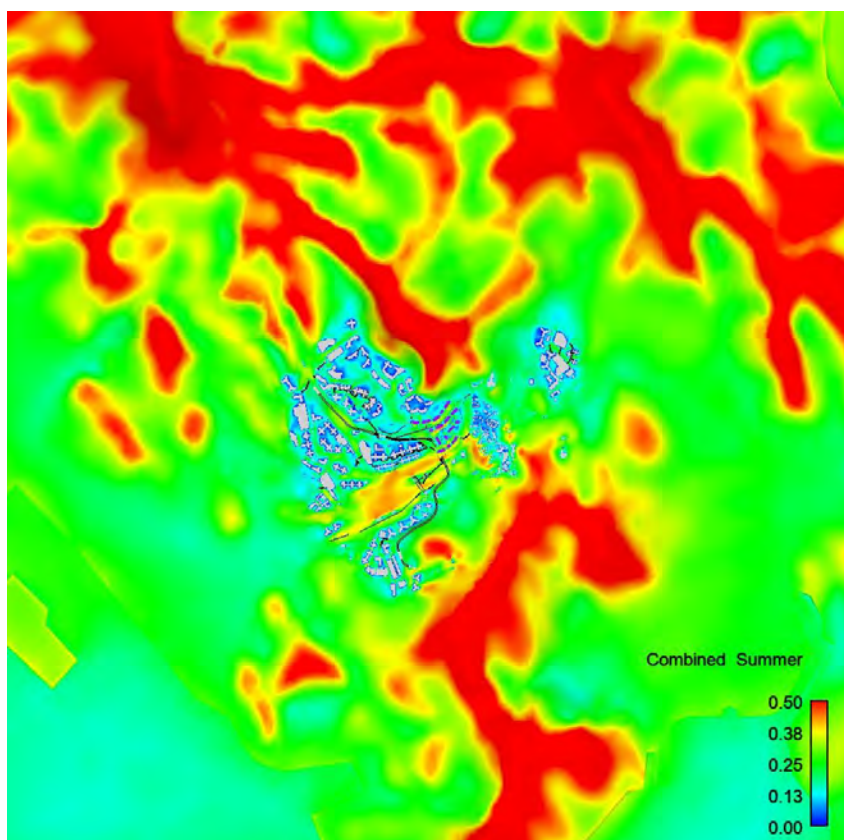


Figure C-52 Summer Weighted Average Contour Plot of VR

Appendix D

Vector Plots of Velocity Ratio (VR)

D.1 Baseline Scheme – Assessment Area

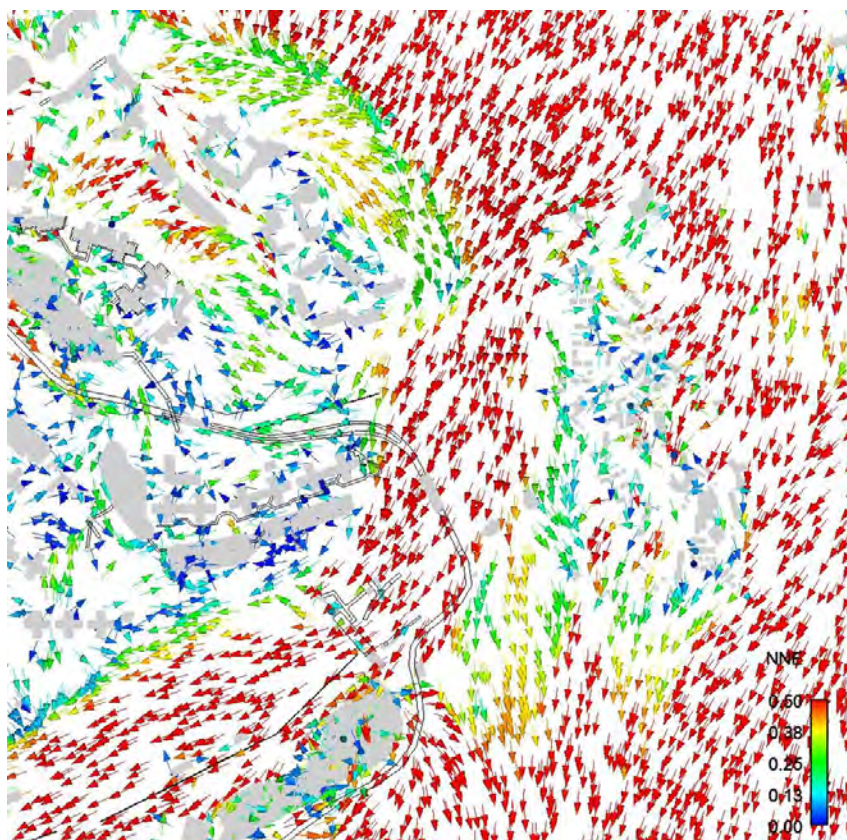


Figure D-1 Vector Plot of VR under NNE Wind

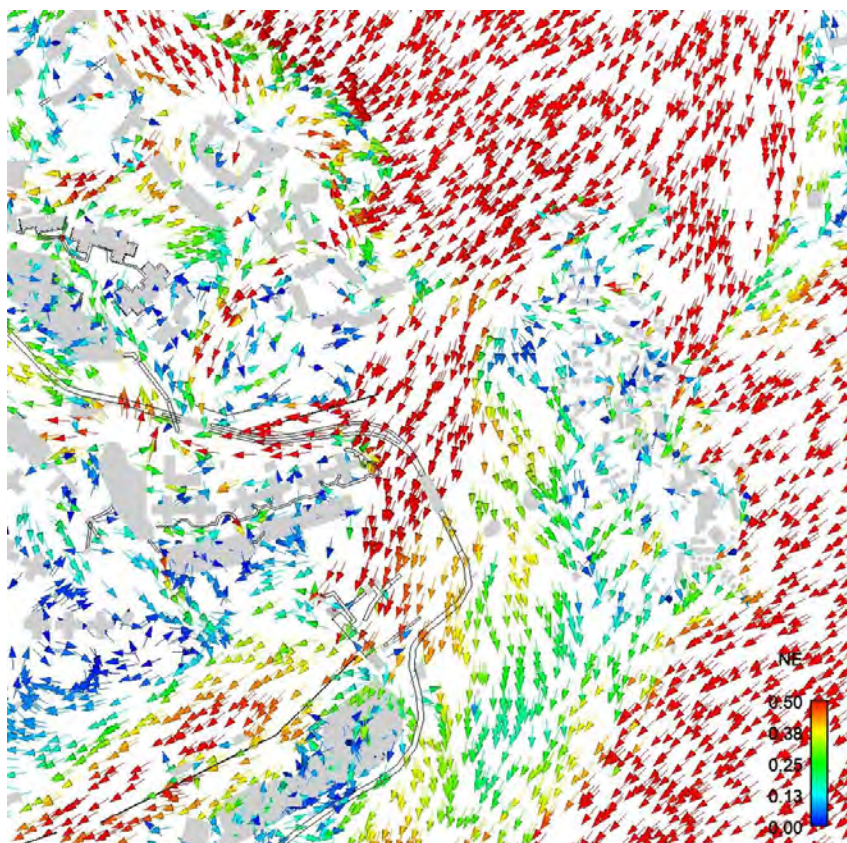


Figure D-2 Vector Plot of VR under NE Wind

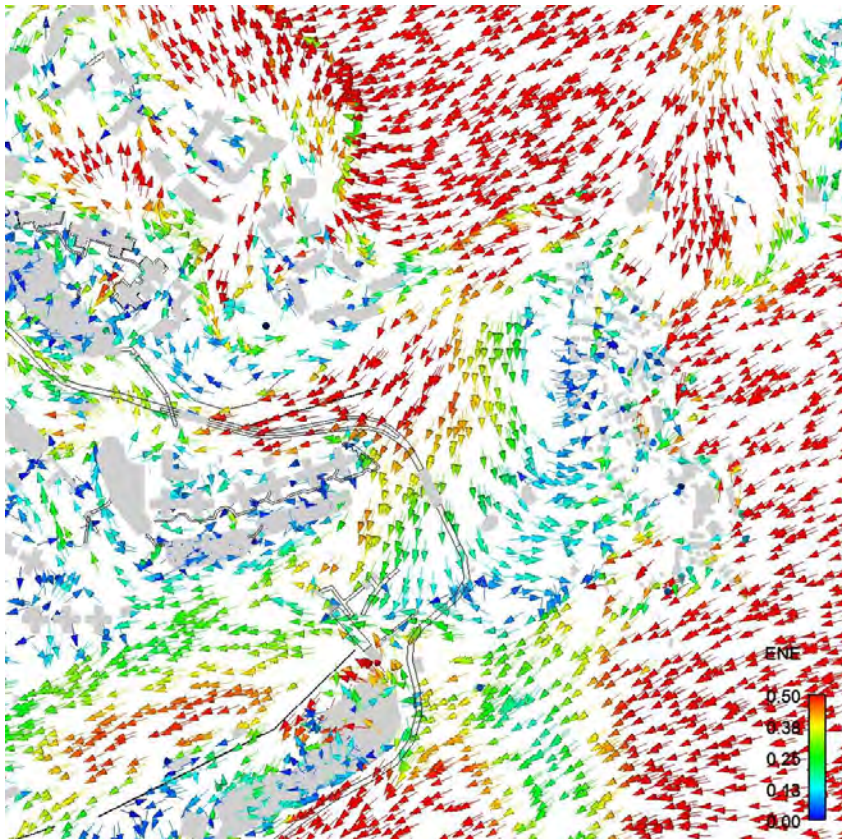


Figure D-3 Vector Plot of VR under ENE Wind

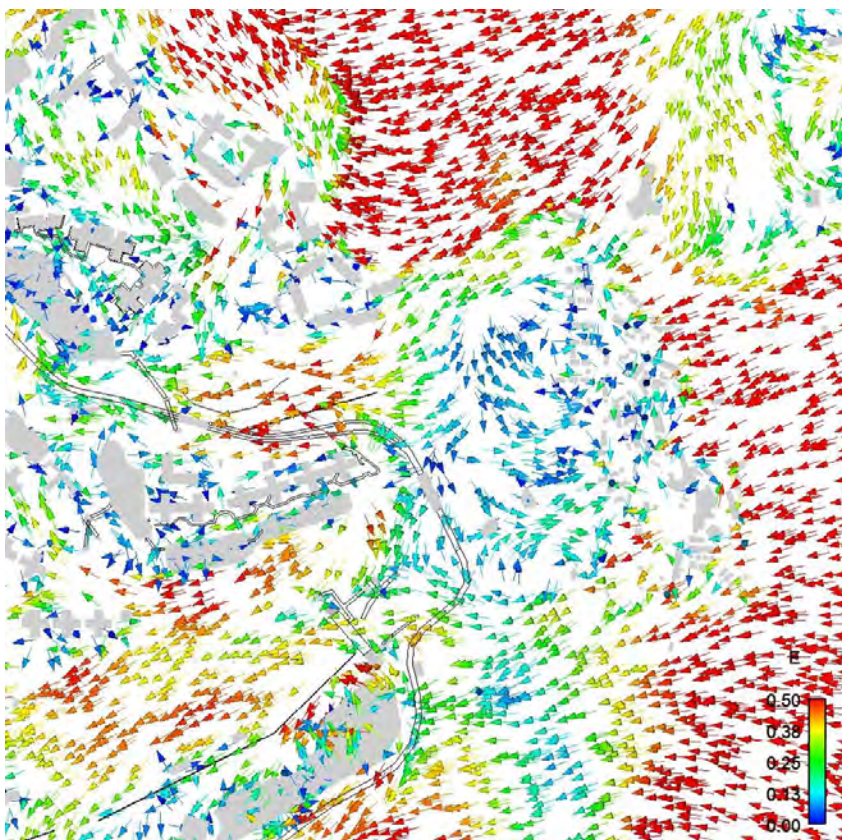


Figure D-4 Vector Plot of VR under E Wind

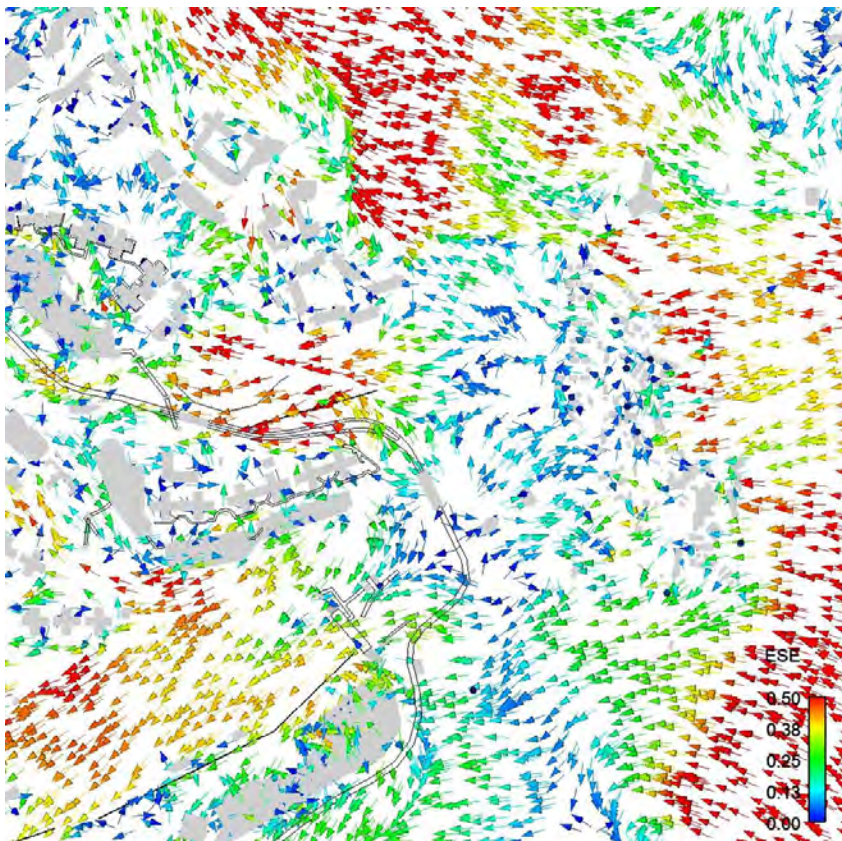


Figure D-5 Vector Plot of VR under ESE Wind

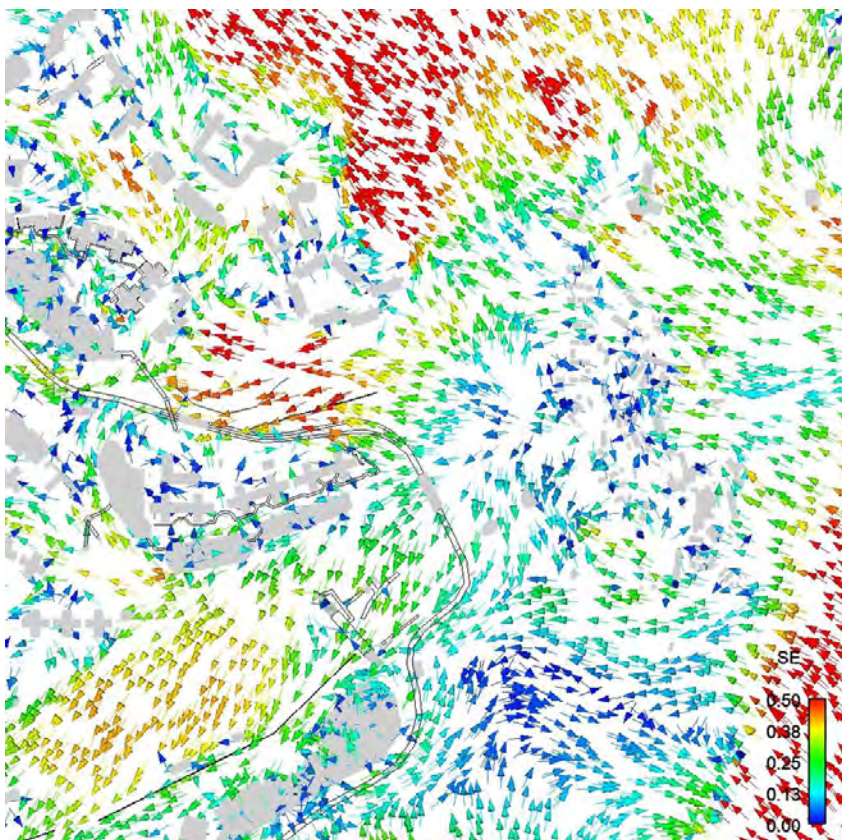


Figure D-6 Vector Plot of VR under SE Wind

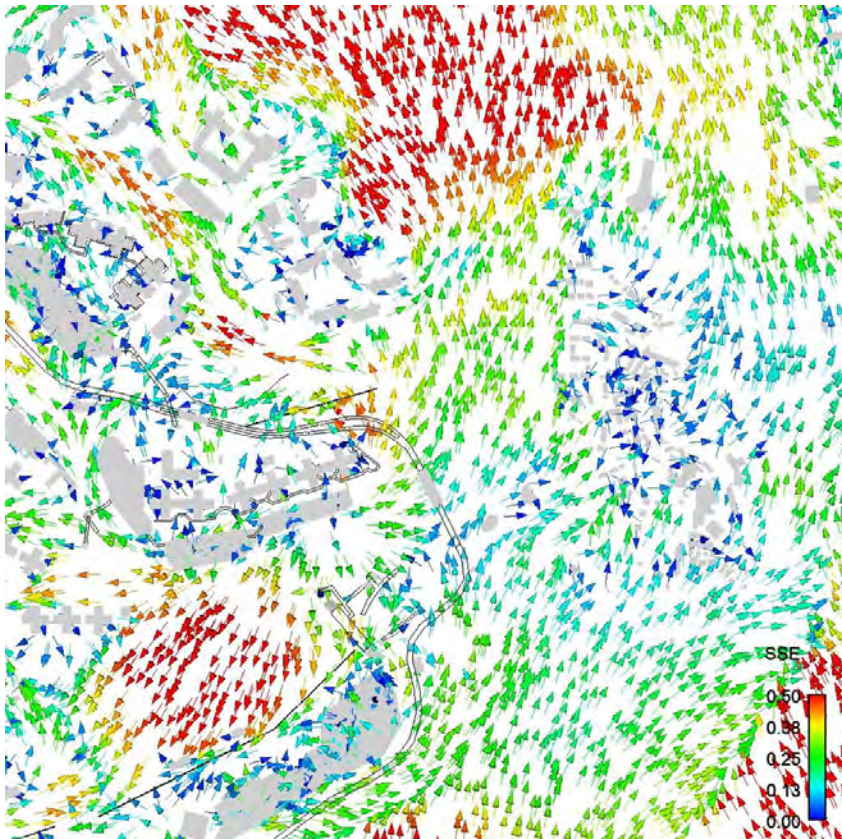


Figure D-7 Vector Plot of VR under SSE Wind

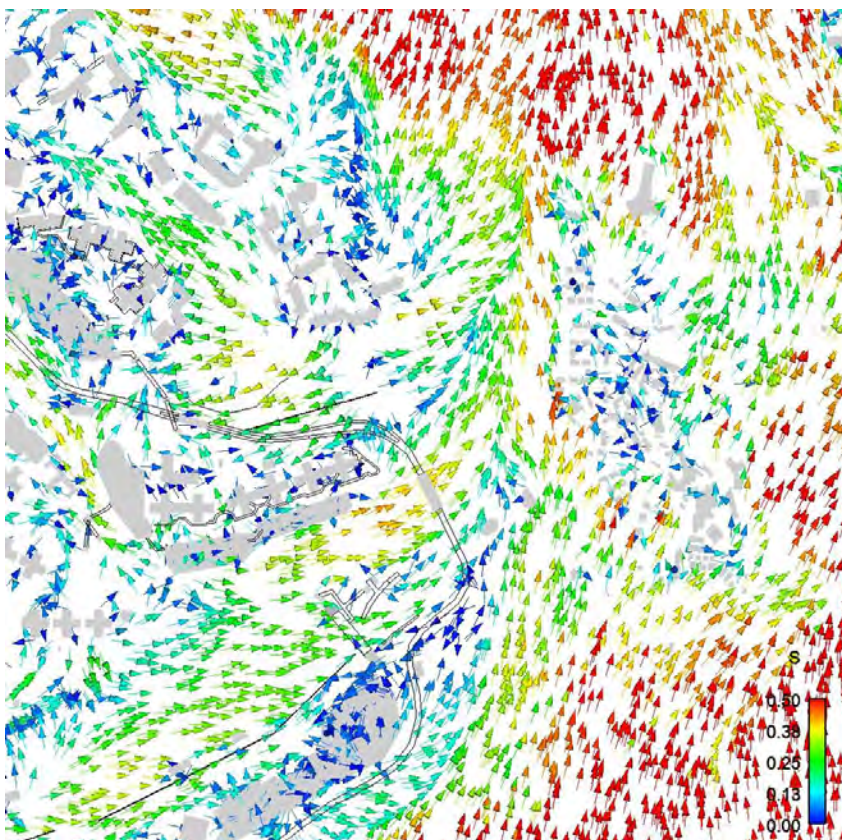


Figure D-8 Vector Plot of VR under S Wind

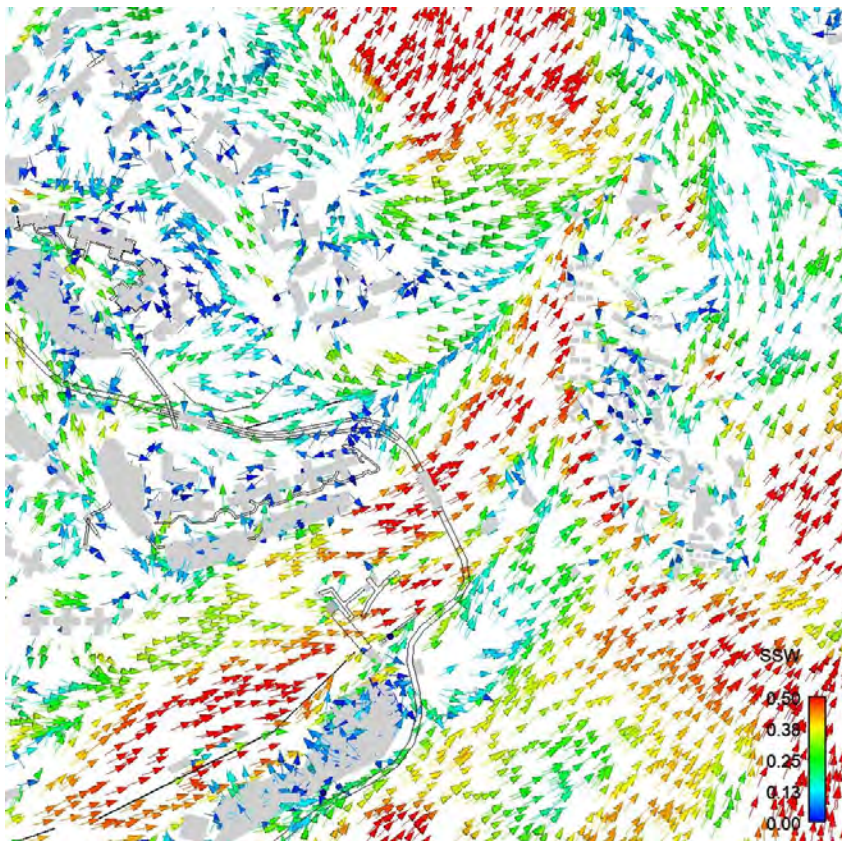


Figure D-9 Vector Plot of VR under SSW Wind

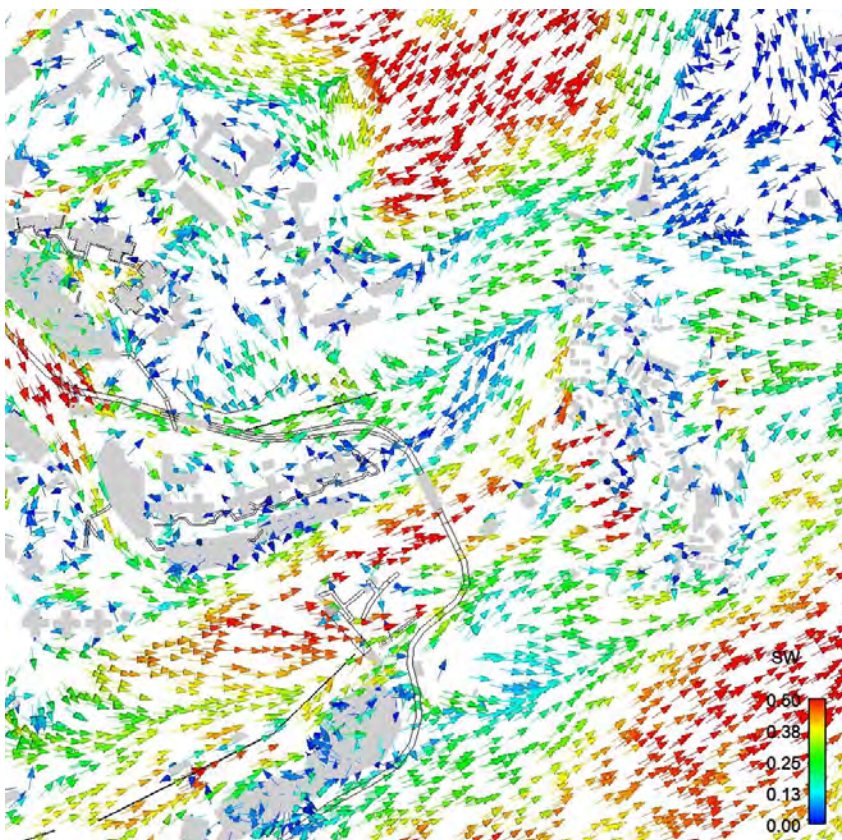


Figure D-10 Vector Plot of VR under SW Wind

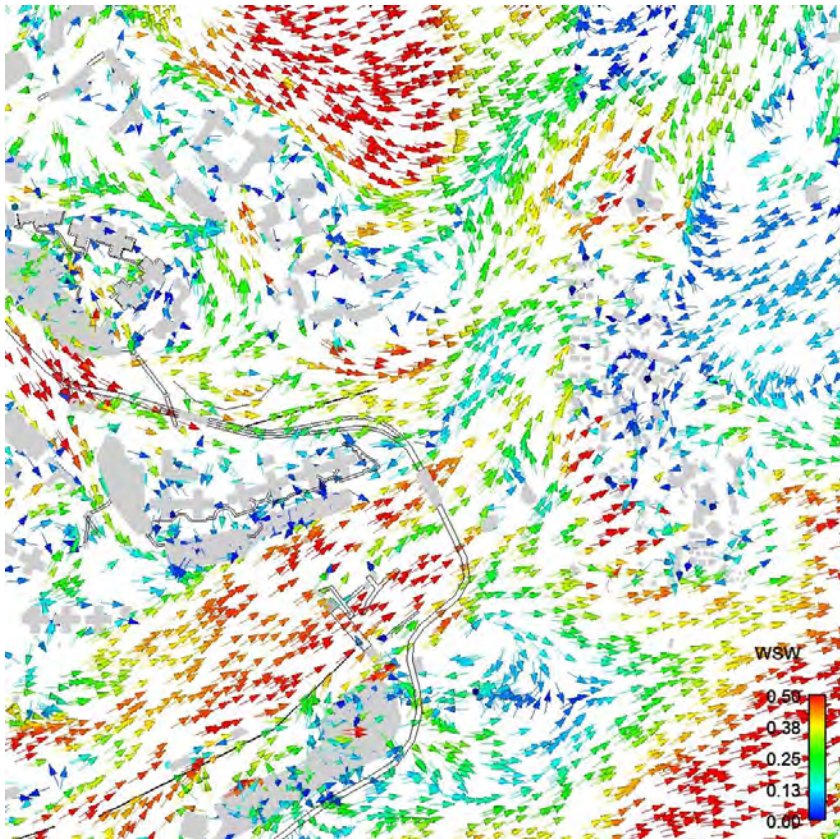


Figure D-11 Vector Plot of VR under WSW Wind

D.2 Indicative Development Scheme – Assessment Area

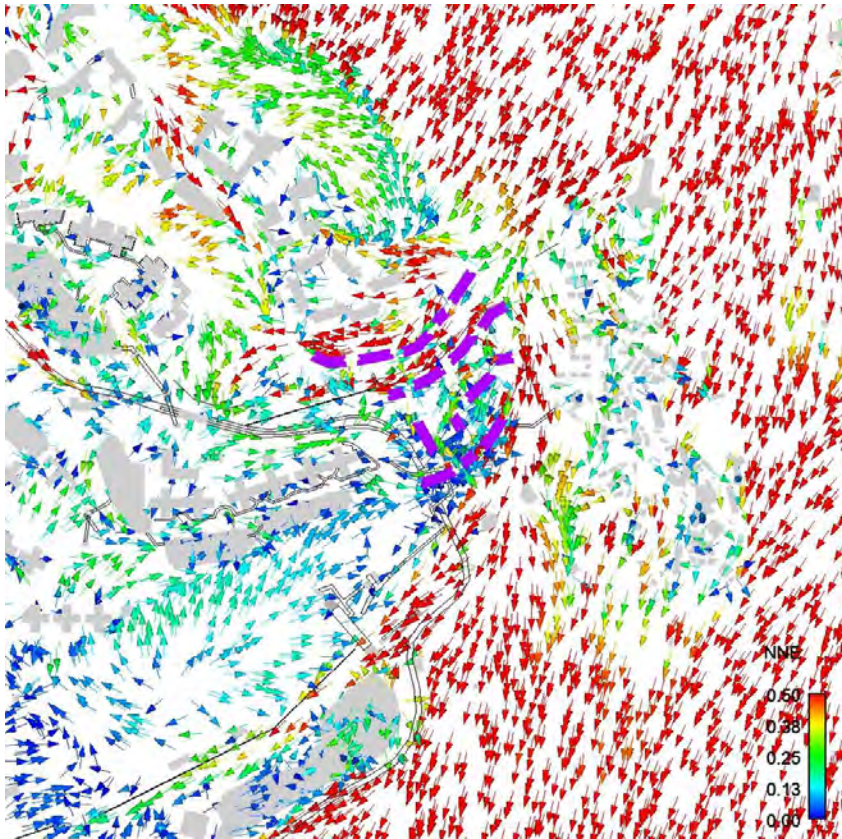


Figure D-12 Vector Plot of VR under NNE Wind

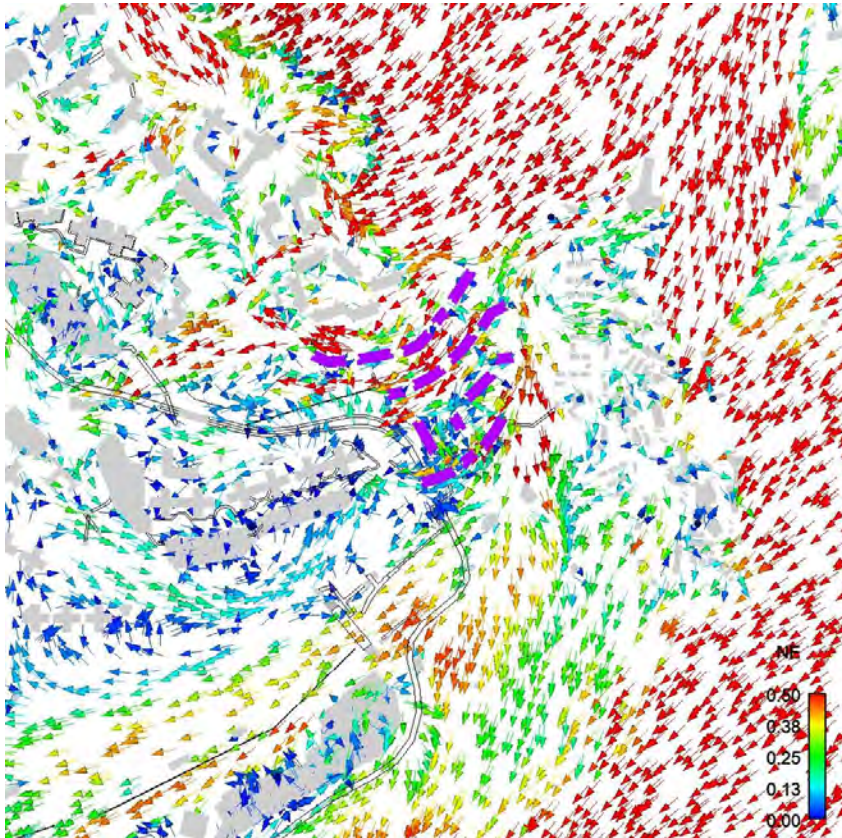


Figure D-13 Vector Plot of VR under NE Wind

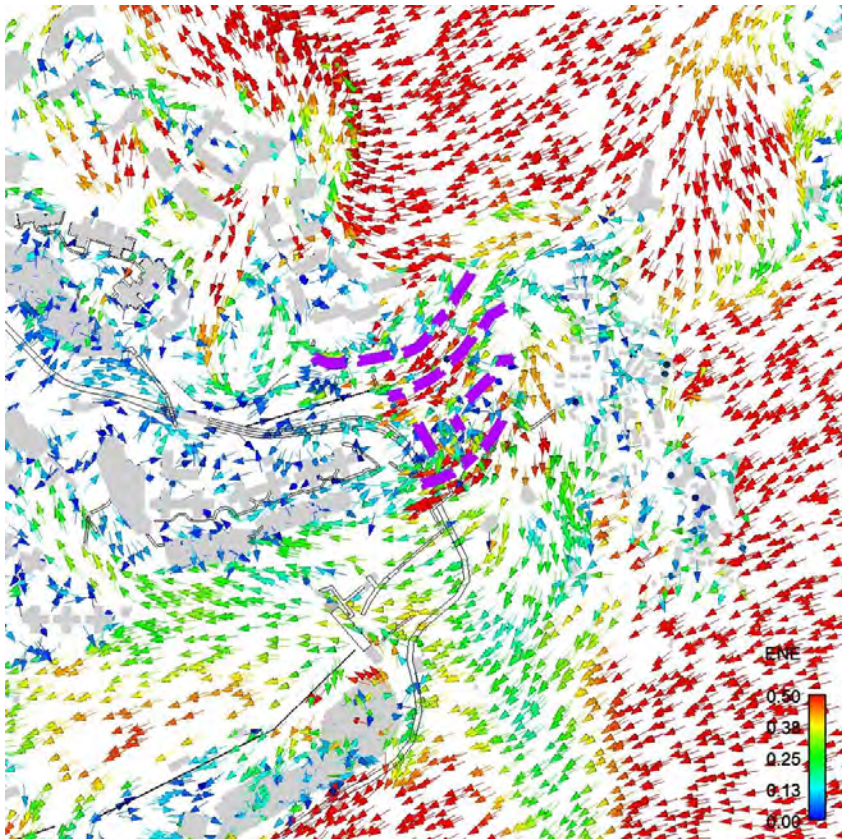


Figure D-14 Vector Plot of VR under ENE Wind

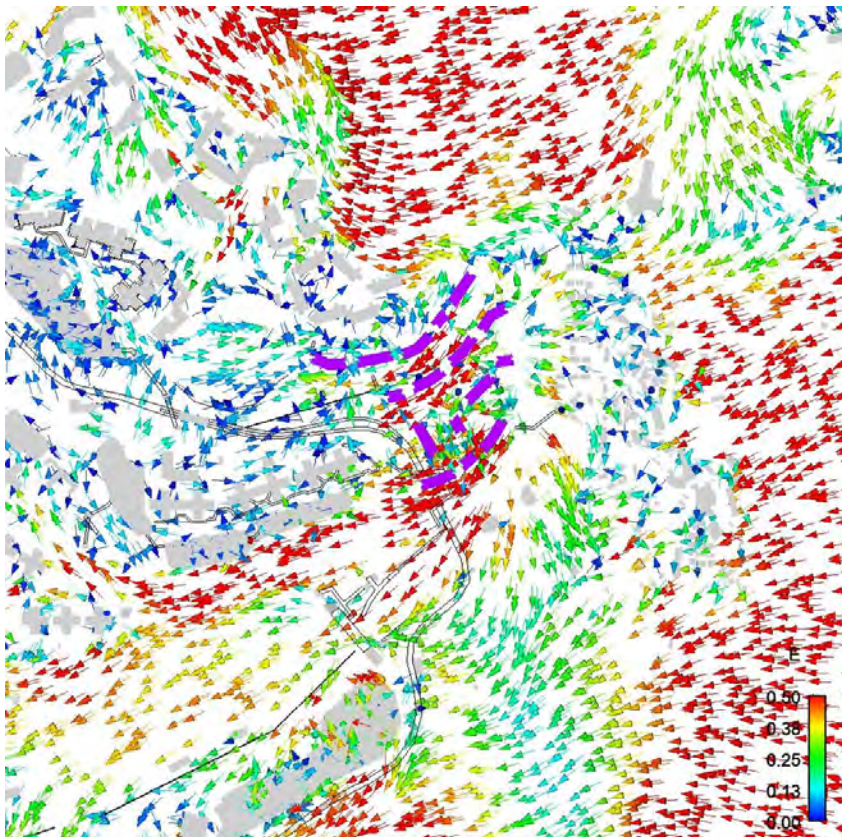


Figure D-15 Vector Plot of VR under E Wind

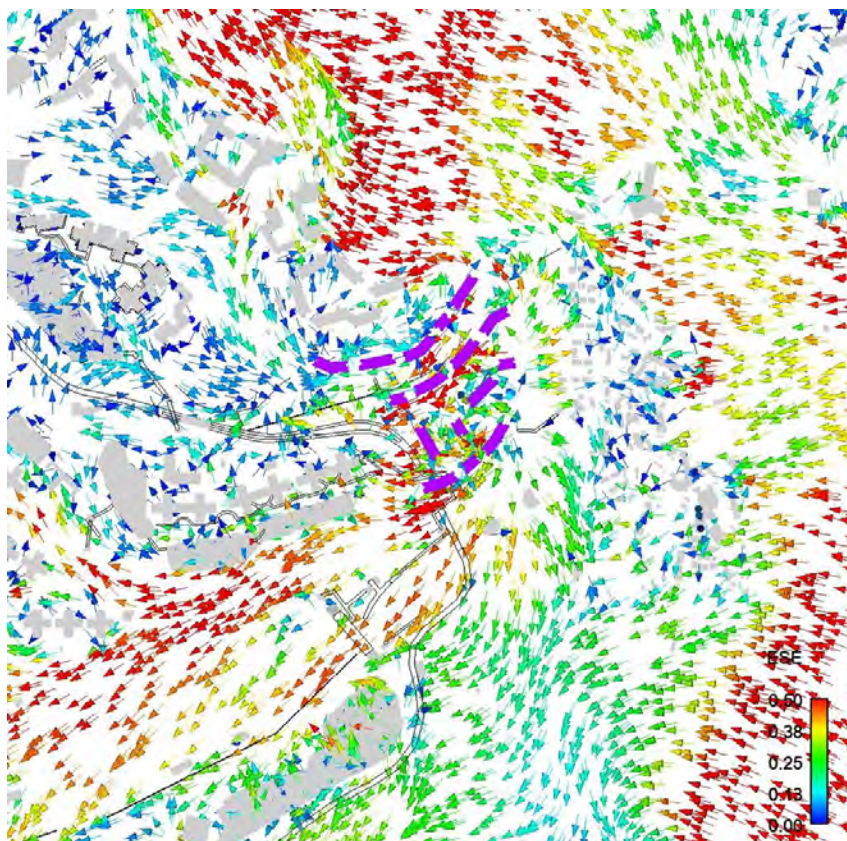


Figure D-16 Vector Plot of VR under ESE Wind

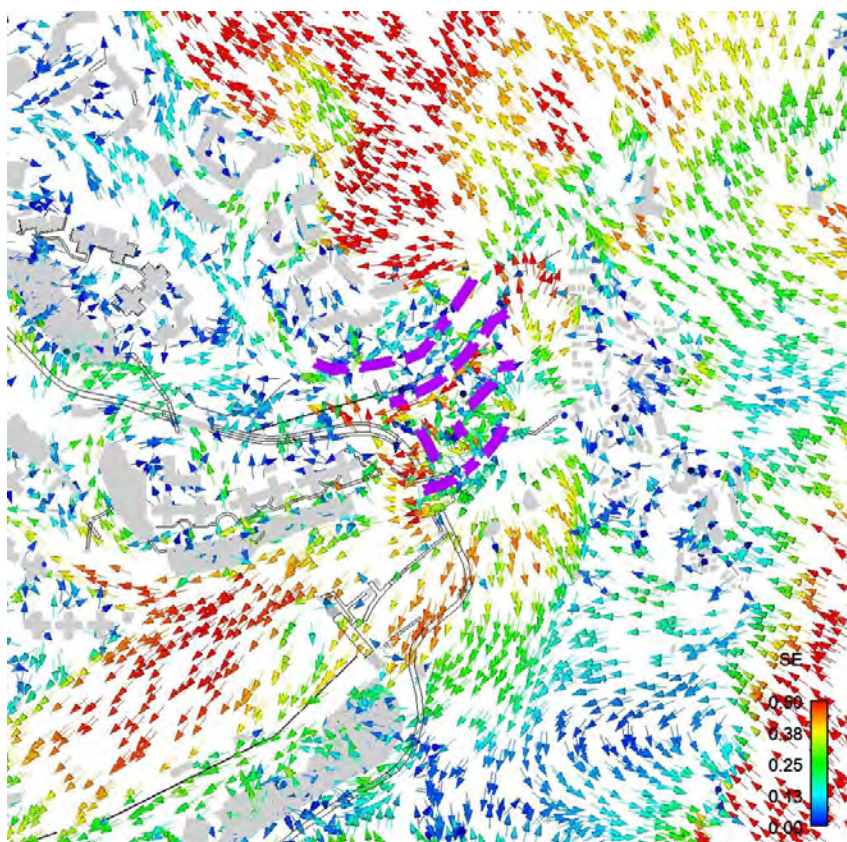


Figure D-17 Vector Plot of VR under SE Wind

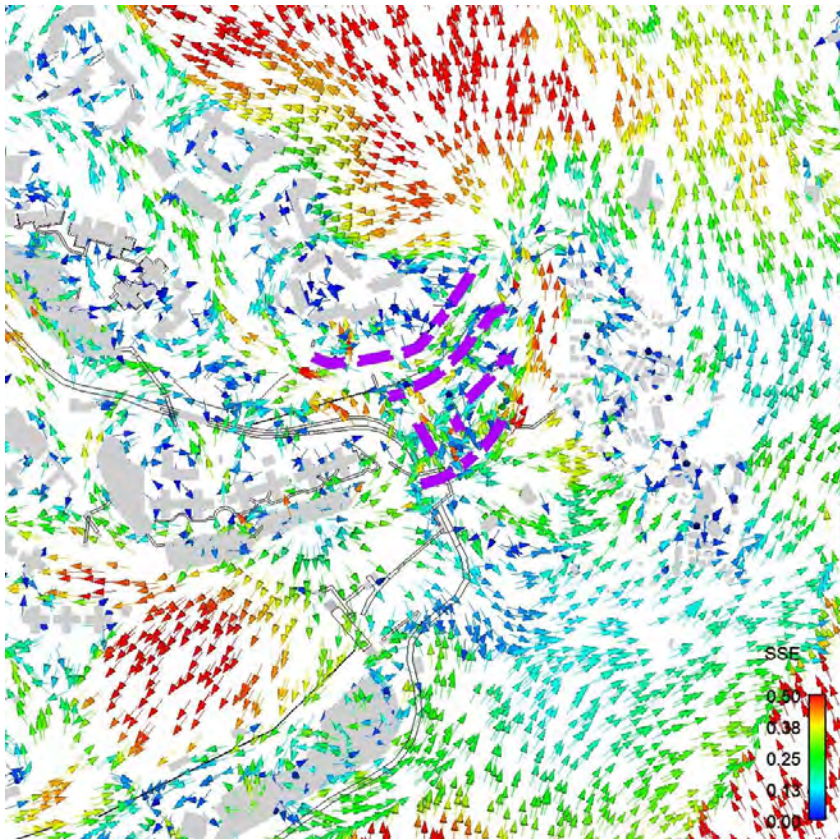


Figure D-18 Vector Plot of VR under SSE Wind

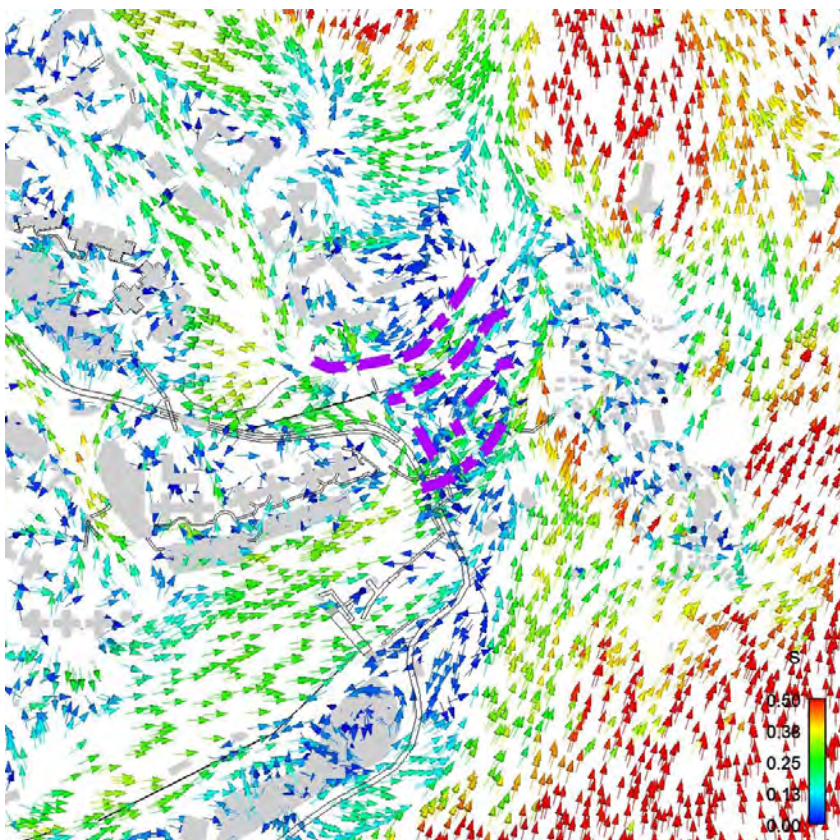


Figure D-19 Vector Plot of VR under S Wind

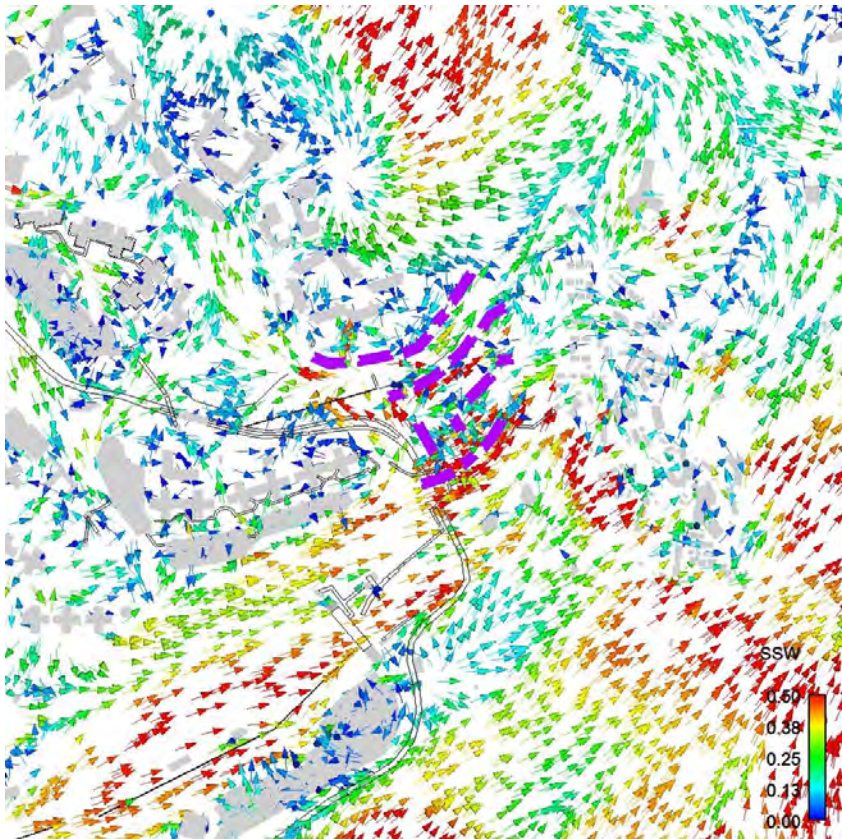


Figure D-20 Vector Plot of VR under SSW Wind

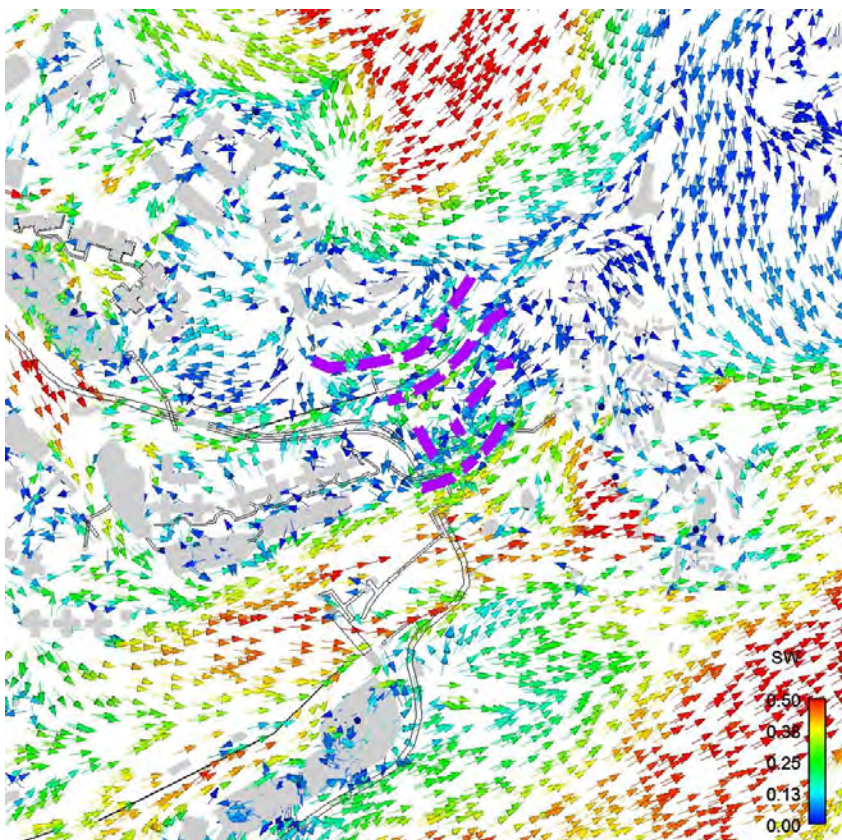


Figure D-21 Vector Plot of VR under SW Wind

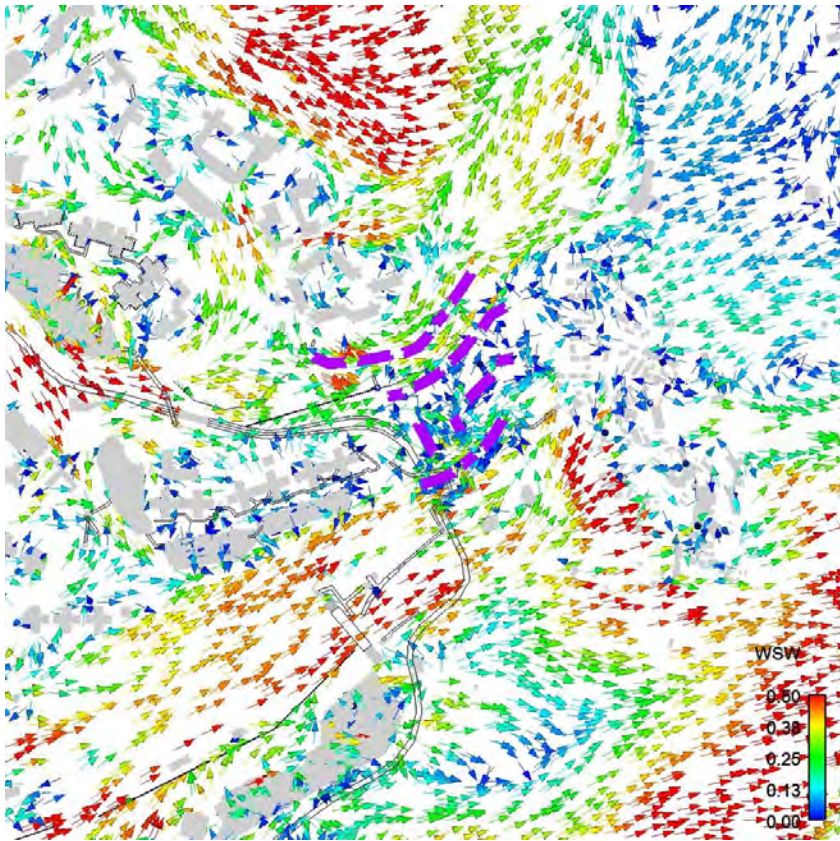


Figure D-22 Vector Plot of VR under WSW Wind

Appendix E

Velocity Ratio (VR) at Test Points

E.1 Baseline Scheme

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
P1	0.17	0.01	0.08	0.44	0.53	0.53	0.42	0.33	0.27	0.33	0.38
P2	0.08	0.05	0.16	0.50	0.55	0.49	0.33	0.22	0.32	0.27	0.48
P3	0.21	0.10	0.55	0.51	0.52	0.42	0.22	0.12	0.33	0.21	0.49
P4	0.32	0.55	0.61	0.46	0.44	0.33	0.16	0.19	0.33	0.21	0.38
P5	0.39	0.72	0.64	0.45	0.40	0.27	0.16	0.26	0.32	0.20	0.31
P6	0.44	0.73	0.61	0.43	0.30	0.21	0.22	0.35	0.27	0.22	0.25
P7	0.41	0.64	0.50	0.36	0.14	0.13	0.23	0.39	0.20	0.23	0.05
P8	0.32	0.46	0.39	0.30	0.09	0.12	0.23	0.32	0.09	0.14	0.09
P9	0.21	0.17	0.20	0.22	0.09	0.21	0.20	0.14	0.02	0.06	0.10
P10	0.17	0.14	0.20	0.25	0.14	0.20	0.19	0.17	0.06	0.08	0.14
P11	0.06	0.38	0.31	0.29	0.15	0.20	0.18	0.25	0.13	0.12	0.19
P12	0.26	0.52	0.43	0.31	0.14	0.20	0.18	0.31	0.15	0.17	0.21
P13	0.50	0.50	0.50	0.32	0.19	0.24	0.23	0.31	0.12	0.24	0.26
P14	0.49	0.45	0.41	0.23	0.20	0.17	0.25	0.30	0.12	0.25	0.25
P15	0.54	0.52	0.40	0.16	0.12	0.28	0.30	0.27	0.21	0.25	0.26
P16	0.56	0.63	0.44	0.14	0.17	0.36	0.33	0.25	0.25	0.24	0.29
P17	0.64	0.75	0.51	0.14	0.27	0.38	0.34	0.24	0.27	0.21	0.39
P18	0.67	0.80	0.56	0.22	0.30	0.35	0.32	0.25	0.27	0.18	0.45
P19	0.66	0.83	0.60	0.30	0.30	0.34	0.33	0.24	0.27	0.16	0.48
P20	0.45	0.81	0.62	0.36	0.36	0.36	0.34	0.20	0.27	0.16	0.49
P21	0.41	0.78	0.65	0.40	0.42	0.38	0.37	0.13	0.28	0.19	0.49
P22	0.29	0.65	0.64	0.42	0.47	0.40	0.27	0.03	0.28	0.23	0.45
P23	0.22	0.37	0.60	0.44	0.51	0.44	0.27	0.12	0.26	0.28	0.40
P24	0.11	0.07	0.57	0.46	0.53	0.47	0.34	0.23	0.26	0.31	0.34
P25	0.05	0.03	0.54	0.47	0.51	0.48	0.34	0.30	0.24	0.30	0.28
P26	0.08	0.03	0.26	0.44	0.54	0.49	0.39	0.30	0.25	0.34	0.41
P27	0.05	0.01	0.10	0.44	0.53	0.49	0.43	0.33	0.22	0.33	0.41
P28	0.21	0.55	0.63	0.30	0.32	0.29	0.44	0.05	0.07	0.21	0.36
P29	0.42	0.79	0.60	0.36	0.41	0.37	0.37	0.14	0.12	0.21	0.40
P30	0.62	0.78	0.57	0.31	0.33	0.33	0.33	0.20	0.13	0.15	0.36
P31	0.66	0.76	0.56	0.26	0.26	0.32	0.31	0.21	0.14	0.11	0.36
P32	0.68	0.67	0.50	0.18	0.19	0.29	0.30	0.18	0.15	0.09	0.32
P33	0.65	0.55	0.43	0.10	0.18	0.30	0.32	0.15	0.18	0.11	0.30
P34	0.69	0.50	0.40	0.07	0.18	0.32	0.36	0.12	0.20	0.18	0.31
P35	0.70	0.44	0.38	0.07	0.12	0.29	0.37	0.12	0.23	0.25	0.33
P36	0.64	0.39	0.37	0.12	0.22	0.20	0.34	0.14	0.22	0.28	0.32
P37	0.60	0.40	0.41	0.23	0.21	0.27	0.31	0.19	0.17	0.28	0.32
P38	0.59	0.59	0.43	0.28	0.15	0.18	0.31	0.29	0.17	0.27	0.34
P39	0.37	0.67	0.41	0.29	0.11	0.10	0.32	0.42	0.25	0.26	0.37
P40	0.42	0.58	0.29	0.17	0.14	0.12	0.32	0.41	0.30	0.27	0.35
P41	0.45	0.25	0.15	0.06	0.14	0.24	0.32	0.39	0.34	0.25	0.32
P42	0.61	0.22	0.22	0.06	0.15	0.19	0.33	0.32	0.29	0.24	0.30
P43	0.51	0.05	0.25	0.06	0.03	0.09	0.34	0.36	0.41	0.12	0.24
P44	0.51	0.03	0.21	0.07	0.06	0.10	0.33	0.39	0.47	0.09	0.22
P45	0.49	0.08	0.17	0.09	0.03	0.15	0.29	0.38	0.47	0.15	0.18
P46	0.45	0.17	0.21	0.11	0.10	0.15	0.27	0.33	0.43	0.16	0.15
P47	0.46	0.24	0.25	0.13	0.06	0.14	0.27	0.30	0.43	0.19	0.21
P48	0.54	0.31	0.28	0.10	0.06	0.08	0.30	0.30	0.47	0.26	0.31
P49	0.60	0.38	0.30	0.09	0.05	0.07	0.32	0.29	0.50	0.31	0.36
P50	0.58	0.31	0.24	0.10	0.04	0.08	0.31	0.35	0.47	0.31	0.34
P51	0.63	0.38	0.23	0.10	0.09	0.05	0.31	0.36	0.48	0.37	0.35
P52	0.58	0.37	0.21	0.14	0.10	0.08	0.25	0.29	0.42	0.36	0.30
P53	0.56	0.33	0.21	0.13	0.11	0.11	0.21	0.19	0.39	0.35	0.26
P54	0.49	0.31	0.21	0.10	0.12	0.11	0.18	0.18	0.42	0.38	0.27
P55	0.49	0.32	0.22	0.09	0.09	0.13	0.17	0.26	0.46	0.42	0.33
P56	0.58	0.37	0.23	0.11	0.03	0.16	0.16	0.30	0.48	0.44	0.35

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
P57	0.68	0.41	0.23	0.13	0.03	0.19	0.14	0.32	0.49	0.46	0.36
P58	0.71	0.43	0.22	0.15	0.04	0.20	0.12	0.32	0.48	0.47	0.36
P59	0.77	0.54	0.29	0.15	0.11	0.19	0.20	0.37	0.52	0.39	0.47
P60	0.77	0.59	0.36	0.10	0.19	0.21	0.25	0.36	0.50	0.24	0.37
P61	0.75	0.59	0.38	0.03	0.22	0.20	0.24	0.30	0.44	0.10	0.09
P62	0.68	0.62	0.44	0.10	0.27	0.24	0.29	0.18	0.26	0.01	0.09
P63	0.54	0.64	0.46	0.29	0.32	0.29	0.37	0.07	0.13	0.20	0.35
P64	0.38	0.70	0.52	0.37	0.31	0.34	0.39	0.08	0.05	0.25	0.39
O1	0.36	0.08	0.41	0.46	0.26	0.11	0.26	0.14	0.21	0.17	0.15
O2	0.23	0.08	0.52	0.41	0.14	0.10	0.23	0.11	0.16	0.13	0.10
O3	0.43	0.10	0.58	0.30	0.12	0.32	0.40	0.19	0.22	0.09	0.05
O4	0.45	0.12	0.63	0.50	0.28	0.20	0.17	0.13	0.20	0.08	0.18
O5	0.76	0.16	0.56	0.54	0.31	0.20	0.26	0.14	0.19	0.08	0.09
O6	0.87	0.23	0.32	0.35	0.29	0.22	0.32	0.16	0.23	0.12	0.30
O7	0.65	0.28	0.29	0.30	0.24	0.10	0.20	0.14	0.16	0.13	0.25
O8	0.54	0.31	0.18	0.18	0.19	0.17	0.24	0.11	0.06	0.20	0.22
O9	0.55	0.27	0.23	0.27	0.27	0.19	0.31	0.05	0.07	0.06	0.11
O10	0.36	0.35	0.46	0.41	0.31	0.13	0.26	0.04	0.12	0.20	0.19
O11	0.53	0.09	0.39	0.33	0.23	0.19	0.17	0.08	0.28	0.38	0.42
O12	0.43	0.40	0.44	0.35	0.23	0.17	0.18	0.04	0.13	0.14	0.24
O13	0.62	0.43	0.32	0.49	0.41	0.28	0.33	0.24	0.56	0.45	0.60
O14	0.68	0.64	0.23	0.43	0.39	0.33	0.35	0.30	0.59	0.57	0.63
O15	0.63	0.43	0.12	0.18	0.12	0.23	0.06	0.22	0.50	0.27	0.52
O16	0.66	0.46	0.11	0.24	0.20	0.25	0.14	0.24	0.53	0.26	0.56
O17	0.67	0.48	0.10	0.30	0.27	0.27	0.26	0.26	0.53	0.44	0.57
O18	0.61	0.46	0.21	0.33	0.31	0.27	0.30	0.25	0.49	0.52	0.54
O19	0.59	0.44	0.18	0.30	0.33	0.28	0.27	0.24	0.48	0.47	0.51
O20	0.32	0.43	0.44	0.27	0.33	0.29	0.34	0.18	0.31	0.21	0.35
O21	0.17	0.37	0.17	0.15	0.04	0.29	0.27	0.05	0.31	0.35	0.35
O22	0.40	0.29	0.39	0.40	0.30	0.31	0.35	0.01	0.40	0.43	0.42
O23	0.58	0.26	0.54	0.54	0.42	0.32	0.36	0.05	0.42	0.41	0.41
O24	0.69	0.33	0.57	0.54	0.41	0.32	0.30	0.05	0.42	0.36	0.31
O25	0.75	0.37	0.52	0.50	0.36	0.30	0.25	0.14	0.45	0.35	0.22
O26	0.78	0.38	0.47	0.45	0.33	0.30	0.24	0.21	0.50	0.38	0.22
O27	0.85	0.45	0.37	0.37	0.30	0.32	0.23	0.22	0.51	0.41	0.24
O28	0.82	0.41	0.29	0.33	0.29	0.30	0.13	0.24	0.51	0.43	0.27
O29	0.79	0.37	0.23	0.31	0.27	0.27	0.05	0.25	0.51	0.44	0.29
O30	0.61	0.37	0.25	0.32	0.39	0.26	0.29	0.24	0.44	0.41	0.49
O31	0.63	0.40	0.29	0.40	0.37	0.26	0.23	0.27	0.43	0.49	0.48
O32	0.13	0.18	0.10	0.11	0.09	0.14	0.37	0.20	0.23	0.38	0.24
O33	0.24	0.24	0.15	0.12	0.11	0.10	0.25	0.25	0.28	0.44	0.34
O34	0.32	0.39	0.23	0.28	0.29	0.36	0.43	0.27	0.35	0.47	0.47
O35	0.33	0.32	0.30	0.38	0.36	0.34	0.45	0.27	0.35	0.46	0.47
O36	0.25	0.22	0.30	0.42	0.40	0.34	0.48	0.26	0.35	0.43	0.46
O37	0.29	0.14	0.28	0.43	0.41	0.34	0.50	0.24	0.34	0.44	0.45
O38	0.31	0.10	0.29	0.44	0.43	0.36	0.53	0.23	0.34	0.45	0.47
O39	0.29	0.12	0.28	0.44	0.44	0.36	0.53	0.19	0.33	0.43	0.47
O40	0.24	0.15	0.26	0.43	0.43	0.35	0.51	0.13	0.32	0.37	0.43
O41	0.13	0.12	0.22	0.41	0.41	0.32	0.47	0.08	0.30	0.26	0.36
O42	0.15	0.09	0.19	0.42	0.43	0.31	0.42	0.06	0.24	0.15	0.15
O43	0.59	0.21	0.34	0.31	0.33	0.27	0.07	0.18	0.15	0.27	0.45
O44	0.53	0.28	0.34	0.32	0.22	0.29	0.19	0.33	0.20	0.26	0.46
O45	0.23	0.18	0.12	0.17	0.18	0.29	0.24	0.40	0.31	0.24	0.42
O46	0.19	0.10	0.10	0.08	0.13	0.22	0.27	0.43	0.39	0.20	0.41
O47	0.84	0.77	0.64	0.47	0.10	0.16	0.28	0.46	0.34	0.15	0.49
O48	0.84	0.74	0.58	0.34	0.26	0.26	0.35	0.36	0.18	0.05	0.12
O49	0.82	0.75	0.58	0.36	0.29	0.28	0.36	0.38	0.19	0.04	0.21
O50	0.80	0.74	0.57	0.38	0.30	0.31	0.38	0.38	0.19	0.03	0.27

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
O51	0.76	0.73	0.56	0.38	0.27	0.33	0.38	0.38	0.20	0.03	0.29
O52	0.37	0.43	0.56	0.47	0.30	0.19	0.10	0.24	0.07	0.19	0.11
O53	0.43	0.46	0.61	0.56	0.37	0.21	0.13	0.21	0.13	0.21	0.11
O54	0.54	0.37	0.56	0.57	0.45	0.25	0.16	0.14	0.21	0.24	0.11
O55	0.76	0.37	0.45	0.48	0.41	0.26	0.19	0.27	0.19	0.25	0.09
O56	0.79	0.60	0.36	0.39	0.41	0.25	0.22	0.30	0.15	0.19	0.08
O57	0.81	0.64	0.34	0.32	0.37	0.27	0.26	0.32	0.14	0.13	0.07
O58	0.82	0.63	0.34	0.27	0.35	0.29	0.30	0.34	0.15	0.10	0.06
O59	0.84	0.57	0.35	0.21	0.33	0.31	0.34	0.36	0.17	0.06	0.07
O60	0.88	0.57	0.39	0.15	0.21	0.35	0.38	0.38	0.16	0.03	0.08
O61	0.93	0.67	0.47	0.19	0.17	0.34	0.40	0.41	0.14	0.03	0.13
O62	0.91	0.72	0.54	0.27	0.24	0.27	0.38	0.42	0.14	0.05	0.13
O63	0.87	0.74	0.57	0.31	0.25	0.25	0.38	0.42	0.16	0.06	0.09
O64	0.84	0.75	0.58	0.34	0.25	0.25	0.31	0.33	0.18	0.05	0.13
O65	0.83	0.76	0.56	0.34	0.17	0.28	0.32	0.44	0.19	0.05	0.20
O66	0.79	0.74	0.56	0.33	0.22	0.28	0.29	0.44	0.22	0.05	0.16
O67	0.83	0.77	0.58	0.31	0.30	0.26	0.28	0.44	0.24	0.04	0.11
O68	0.82	0.78	0.58	0.28	0.32	0.22	0.23	0.41	0.20	0.04	0.09
O69	0.79	0.76	0.53	0.34	0.37	0.22	0.20	0.35	0.18	0.09	0.07
O70	0.80	0.74	0.48	0.43	0.43	0.24	0.16	0.30	0.14	0.14	0.06
O71	0.79	0.73	0.46	0.49	0.47	0.26	0.13	0.26	0.11	0.19	0.05
O72	0.79	0.72	0.48	0.57	0.52	0.28	0.11	0.23	0.08	0.24	0.04
O73	0.51	0.64	0.69	0.58	0.36	0.12	0.15	0.50	0.28	0.22	0.10
O74	0.54	0.63	0.67	0.57	0.35	0.12	0.15	0.50	0.24	0.23	0.12
O75	0.57	0.64	0.68	0.58	0.37	0.13	0.13	0.39	0.22	0.26	0.13
O76	0.61	0.58	0.70	0.58	0.39	0.16	0.11	0.28	0.16	0.29	0.10
O77	0.73	0.56	0.75	0.62	0.42	0.21	0.07	0.16	0.23	0.24	0.10
O78	0.86	0.51	0.83	0.76	0.53	0.31	0.12	0.31	0.31	0.17	0.09
O79	0.87	0.60	0.78	0.81	0.57	0.32	0.08	0.19	0.24	0.33	0.09
O80	0.85	0.72	0.59	0.68	0.52	0.26	0.10	0.24	0.11	0.25	0.06
O81	0.72	0.70	0.44	0.51	0.48	0.25	0.10	0.19	0.07	0.18	0.07
O82	0.69	0.71	0.44	0.47	0.48	0.28	0.07	0.14	0.20	0.17	0.06
O83	0.69	0.72	0.43	0.42	0.45	0.28	0.06	0.07	0.22	0.11	0.07
O84	0.07	0.49	0.47	0.40	0.49	0.31	0.06	0.08	0.23	0.08	0.17
O85	0.18	0.08	0.38	0.35	0.48	0.34	0.07	0.12	0.26	0.06	0.23
O86	0.29	0.25	0.22	0.13	0.43	0.32	0.18	0.29	0.17	0.16	0.24
O87	0.26	0.18	0.19	0.17	0.39	0.27	0.12	0.22	0.12	0.27	0.37
O88	0.44	0.12	0.34	0.31	0.36	0.11	0.15	0.05	0.42	0.26	0.43
O89	0.19	0.66	0.47	0.33	0.32	0.09	0.32	0.30	0.32	0.25	0.40
O90	0.47	0.70	0.53	0.35	0.15	0.10	0.32	0.41	0.16	0.25	0.37
O91	0.58	0.55	0.55	0.35	0.07	0.08	0.32	0.32	0.15	0.25	0.35
O92	0.59	0.43	0.54	0.34	0.15	0.19	0.30	0.22	0.13	0.26	0.33
O93	0.57	0.35	0.47	0.28	0.21	0.27	0.28	0.24	0.11	0.28	0.30
O94	0.59	0.34	0.40	0.18	0.23	0.19	0.31	0.21	0.19	0.28	0.30
O95	0.65	0.43	0.38	0.10	0.14	0.28	0.36	0.18	0.23	0.26	0.31
O96	0.68	0.53	0.41	0.07	0.18	0.35	0.37	0.17	0.22	0.22	0.32
O97	0.66	0.63	0.46	0.10	0.22	0.33	0.34	0.18	0.21	0.16	0.35
O98	0.65	0.71	0.51	0.19	0.23	0.32	0.31	0.20	0.21	0.12	0.39
O99	0.67	0.79	0.57	0.27	0.27	0.33	0.32	0.23	0.20	0.11	0.42
O100	0.61	0.79	0.58	0.32	0.33	0.34	0.33	0.21	0.20	0.12	0.40
O101	0.39	0.79	0.62	0.38	0.41	0.37	0.36	0.15	0.22	0.17	0.43
O102	0.29	0.60	0.57	0.42	0.49	0.43	0.32	0.04	0.23	0.21	0.40
O103	0.23	0.54	0.56	0.44	0.52	0.45	0.40	0.10	0.22	0.23	0.36
O104	0.17	0.35	0.54	0.47	0.53	0.47	0.39	0.24	0.22	0.25	0.34
O105	0.05	0.47	0.54	0.49	0.51	0.49	0.27	0.29	0.17	0.11	0.34
O106	0.06	0.53	0.57	0.48	0.48	0.49	0.12	0.31	0.17	0.12	0.33
O107	0.04	0.54	0.58	0.46	0.45	0.47	0.11	0.30	0.18	0.15	0.33
O108	0.05	0.49	0.56	0.44	0.44	0.46	0.15	0.29	0.19	0.20	0.32

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
O109	0.03	0.37	0.54	0.43	0.44	0.45	0.17	0.28	0.19	0.22	0.31
O110	0.06	0.09	0.49	0.40	0.43	0.41	0.20	0.26	0.24	0.21	0.33
O111	0.05	0.09	0.32	0.29	0.35	0.35	0.24	0.19	0.21	0.21	0.36
O112	0.08	0.17	0.33	0.34	0.40	0.39	0.06	0.19	0.13	0.08	0.30
O113	0.11	0.15	0.26	0.29	0.38	0.33	0.11	0.06	0.18	0.31	0.44
O114	0.11	0.32	0.26	0.23	0.33	0.27	0.14	0.10	0.22	0.36	0.53
O115	0.27	0.34	0.34	0.16	0.25	0.16	0.13	0.09	0.24	0.28	0.37
O116	0.06	0.46	0.35	0.23	0.21	0.09	0.21	0.18	0.29	0.20	0.23
O117	0.12	0.43	0.34	0.28	0.19	0.13	0.24	0.27	0.31	0.29	0.32
O118	0.14	0.53	0.43	0.32	0.11	0.13	0.20	0.26	0.29	0.19	0.20
O119	0.10	0.48	0.42	0.25	0.11	0.11	0.26	0.35	0.29	0.43	0.42
O120	0.36	0.32	0.34	0.27	0.42	0.36	0.26	0.20	0.23	0.61	0.70
O121	0.13	0.28	0.32	0.27	0.38	0.31	0.20	0.12	0.19	0.55	0.65
O122	0.15	0.30	0.34	0.24	0.37	0.29	0.16	0.09	0.04	0.24	0.56
O123	0.22	0.41	0.36	0.15	0.34	0.29	0.05	0.12	0.06	0.13	0.49
O124	0.16	0.32	0.22	0.20	0.29	0.33	0.07	0.13	0.13	0.06	0.38
O125	0.11	0.04	0.54	0.48	0.48	0.48	0.30	0.32	0.19	0.15	0.28
O126	0.12	0.01	0.10	0.44	0.54	0.49	0.40	0.33	0.23	0.30	0.34
O127	0.19	0.11	0.16	0.46	0.57	0.53	0.42	0.37	0.18	0.21	0.30
O128	0.10	0.17	0.09	0.41	0.43	0.43	0.26	0.37	0.15	0.14	0.25
O129	0.20	0.20	0.11	0.36	0.35	0.37	0.15	0.34	0.18	0.06	0.35
O130	0.16	0.28	0.14	0.32	0.30	0.33	0.14	0.30	0.18	0.08	0.36
O131	0.09	0.16	0.13	0.31	0.33	0.34	0.09	0.25	0.13	0.07	0.31
O132	0.08	0.29	0.10	0.34	0.37	0.37	0.04	0.18	0.09	0.10	0.21
O133	0.06	0.09	0.13	0.28	0.37	0.37	0.06	0.07	0.12	0.13	0.34
O134	0.05	0.07	0.13	0.24	0.31	0.28	0.09	0.07	0.22	0.01	0.38
O135	0.13	0.16	0.10	0.15	0.25	0.27	0.14	0.13	0.12	0.06	0.19
O136	0.16	0.20	0.09	0.14	0.16	0.20	0.08	0.12	0.11	0.15	0.06
O137	0.29	0.18	0.11	0.21	0.23	0.12	0.04	0.06	0.18	0.13	0.24
O138	0.35	0.25	0.07	0.24	0.43	0.38	0.16	0.08	0.24	0.21	0.38
O139	0.29	0.24	0.28	0.22	0.43	0.41	0.21	0.13	0.23	0.25	0.32
O140	0.18	0.26	0.28	0.15	0.27	0.15	0.17	0.10	0.27	0.38	0.40
O141	0.31	0.21	0.23	0.20	0.26	0.06	0.15	0.09	0.30	0.35	0.36
O142	0.44	0.37	0.57	0.54	0.50	0.41	0.19	0.15	0.18	0.30	0.31
O143	0.15	0.37	0.61	0.56	0.52	0.44	0.23	0.21	0.04	0.11	0.19
O144	0.05	0.31	0.44	0.44	0.42	0.37	0.21	0.18	0.06	0.05	0.07
O145	0.09	0.36	0.39	0.38	0.44	0.40	0.19	0.18	0.09	0.01	0.06
O146	0.48	0.44	0.40	0.41	0.37	0.27	0.33	0.18	0.11	0.13	0.19
O147	0.54	0.26	0.55	0.51	0.40	0.29	0.29	0.16	0.14	0.17	0.23
O148	0.58	0.07	0.63	0.58	0.42	0.29	0.31	0.15	0.14	0.21	0.17
O149	0.59	0.11	0.64	0.58	0.40	0.27	0.33	0.15	0.16	0.24	0.14
O150	0.59	0.14	0.44	0.41	0.36	0.27	0.26	0.18	0.19	0.29	0.08
O151	0.58	0.35	0.51	0.50	0.44	0.35	0.25	0.21	0.23	0.35	0.27
O152	0.49	0.46	0.78	0.60	0.42	0.31	0.30	0.20	0.24	0.31	0.39
O153	0.47	0.23	0.59	0.18	0.36	0.25	0.20	0.22	0.26	0.19	0.41
O154	0.32	0.32	0.44	0.12	0.24	0.07	0.08	0.23	0.23	0.08	0.38
O155	0.25	0.69	0.39	0.07	0.20	0.09	0.08	0.23	0.24	0.06	0.34
O156	0.22	0.12	0.12	0.07	0.20	0.13	0.07	0.19	0.14	0.10	0.24
O157	0.28	0.04	0.16	0.05	0.12	0.24	0.33	0.30	0.26	0.20	0.22
O158	0.22	0.22	0.20	0.10	0.35	0.49	0.50	0.34	0.23	0.29	0.23
O159	0.21	0.14	0.15	0.21	0.51	0.57	0.49	0.38	0.24	0.33	0.32
O160	0.05	0.02	0.12	0.37	0.52	0.55	0.39	0.32	0.31	0.25	0.45
O161	0.08	0.05	0.09	0.48	0.53	0.50	0.28	0.22	0.31	0.18	0.49
O162	0.15	0.08	0.41	0.50	0.50	0.43	0.17	0.19	0.33	0.23	0.38
O163	0.33	0.50	0.60	0.52	0.42	0.32	0.06	0.24	0.32	0.20	0.20
O164	0.41	0.73	0.61	0.49	0.33	0.22	0.18	0.33	0.22	0.19	0.16
O165	0.41	0.67	0.49	0.39	0.17	0.11	0.23	0.38	0.18	0.22	0.05
O166	0.35	0.57	0.43	0.36	0.11	0.05	0.22	0.26	0.09	0.12	0.10

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
O167	0.28	0.36	0.19	0.25	0.08	0.26	0.30	0.10	0.03	0.04	0.10
O168	0.05	0.08	0.43	0.50	0.30	0.25	0.08	0.22	0.25	0.13	0.18
O169	0.14	0.08	0.49	0.46	0.24	0.15	0.09	0.24	0.23	0.16	0.19
O170	0.12	0.36	0.33	0.36	0.28	0.09	0.17	0.29	0.34	0.16	0.21
O171	0.10	0.30	0.39	0.35	0.22	0.13	0.13	0.19	0.21	0.13	0.17
O172	0.11	0.47	0.47	0.47	0.30	0.06	0.15	0.28	0.27	0.19	0.14
O173	0.08	0.31	0.51	0.43	0.34	0.23	0.12	0.14	0.29	0.17	0.25
O174	0.23	0.15	0.45	0.41	0.31	0.23	0.15	0.20	0.24	0.04	0.04
O175	0.32	0.08	0.34	0.33	0.25	0.33	0.18	0.32	0.37	0.17	0.18
O176	0.50	0.40	0.33	0.23	0.21	0.07	0.06	0.29	0.16	0.13	0.11
O177	0.53	0.46	0.66	0.61	0.39	0.18	0.06	0.13	0.31	0.13	0.14
O178	0.33	0.34	0.32	0.42	0.36	0.23	0.07	0.16	0.16	0.24	0.16
O179	0.59	0.28	0.21	0.14	0.20	0.24	0.11	0.27	0.29	0.33	0.21
O180	0.92	0.65	0.88	0.75	0.51	0.30	0.17	0.41	0.48	0.49	0.28
O181	0.51	0.26	0.36	0.44	0.56	0.30	0.13	0.36	0.44	0.24	0.02
O182	0.88	0.57	0.65	0.51	0.26	0.18	0.08	0.24	0.29	0.23	0.07
O183	0.83	0.71	0.55	0.62	0.36	0.15	0.07	0.15	0.12	0.21	0.09
O184	0.79	0.70	0.47	0.54	0.41	0.20	0.12	0.27	0.08	0.15	0.04
O185	0.59	0.13	0.25	0.50	0.39	0.12	0.10	0.17	0.13	0.15	0.02
O186	0.57	0.05	0.32	0.47	0.37	0.25	0.08	0.08	0.13	0.15	0.06
O187	0.33	0.13	0.15	0.09	0.10	0.18	0.03	0.04	0.23	0.16	0.07
O188	0.20	0.06	0.06	0.15	0.16	0.17	0.05	0.01	0.23	0.11	0.08
O189	0.10	0.20	0.25	0.14	0.16	0.13	0.09	0.05	0.36	0.18	0.17
O190	0.06	0.19	0.15	0.10	0.19	0.09	0.03	0.04	0.20	0.16	0.09
O191	0.10	0.06	0.05	0.16	0.13	0.04	0.04	0.13	0.16	0.13	0.09
O192	0.22	0.26	0.08	0.25	0.08	0.03	0.15	0.18	0.30	0.31	0.20
O193	0.10	0.07	0.10	0.11	0.03	0.04	0.23	0.21	0.45	0.41	0.32
O194	0.08	0.07	0.08	0.08	0.09	0.06	0.26	0.41	0.48	0.43	0.34
O195	0.83	0.51	0.98	0.95	0.45	0.09	0.02	0.07	0.08	0.38	0.07
O196	0.97	0.77	0.74	0.78	0.51	0.08	0.09	0.23	0.24	0.28	0.09
O197	0.46	0.48	0.59	0.52	0.31	0.22	0.08	0.10	0.11	0.06	0.18
O198	0.67	0.54	0.56	0.45	0.28	0.17	0.14	0.37	0.38	0.32	0.34
O199	0.26	0.17	0.24	0.20	0.15	0.19	0.19	0.20	0.29	0.04	0.12
O200	0.12	0.15	0.30	0.25	0.16	0.10	0.08	0.17	0.08	0.05	0.08
O201	0.09	0.18	0.20	0.24	0.34	0.21	0.17	0.40	0.36	0.05	0.07
O202	0.16	0.04	0.30	0.13	0.18	0.17	0.12	0.38	0.10	0.19	0.22
O203	0.23	0.04	0.06	0.12	0.09	0.09	0.13	0.29	0.22	0.22	0.10
O204	0.11	0.19	0.09	0.09	0.11	0.10	0.10	0.23	0.17	0.08	0.09
O205	0.34	0.30	0.26	0.20	0.13	0.07	0.14	0.30	0.29	0.14	0.11
O206	0.09	0.10	0.13	0.10	0.10	0.08	0.03	0.07	0.03	0.02	0.06
O207	0.11	0.09	0.21	0.15	0.02	0.07	0.05	0.07	0.09	0.08	0.09
O208	0.10	0.13	0.16	0.10	0.07	0.06	0.08	0.12	0.09	0.14	0.10
O209	0.12	0.11	0.14	0.11	0.09	0.16	0.16	0.13	0.18	0.23	0.22
O210	0.53	0.27	0.27	0.26	0.22	0.17	0.08	0.11	0.21	0.11	0.11
O211	0.35	0.18	0.30	0.11	0.19	0.10	0.04	0.11	0.22	0.08	0.06
O212	0.40	0.32	0.48	0.24	0.16	0.06	0.06	0.06	0.03	0.04	0.04
O213	0.41	0.37	0.43	0.25	0.25	0.15	0.13	0.31	0.09	0.05	0.06
O214	0.40	0.28	0.23	0.07	0.14	0.07	0.07	0.06	0.13	0.10	0.12
O215	0.24	0.21	0.16	0.05	0.05	0.03	0.03	0.07	0.16	0.04	0.06
O216	0.12	0.02	0.22	0.18	0.04	0.01	0.01	0.14	0.17	0.15	0.06
O217	0.42	0.32	0.46	0.13	0.16	0.15	0.05	0.08	0.05	0.07	0.02
O218	0.18	0.17	0.17	0.20	0.09	0.06	0.02	0.05	0.01	0.03	0.04
O219	0.16	0.14	0.14	0.14	0.09	0.09	0.02	0.09	0.12	0.06	0.03
O220	0.07	0.08	0.03	0.07	0.11	0.10	0.04	0.04	0.05	0.03	0.04
O221	0.28	0.33	0.18	0.22	0.07	0.03	0.20	0.36	0.25	0.16	0.16
O222	0.07	0.38	0.07	0.15	0.12	0.11	0.05	0.07	0.12	0.14	0.05
O223	0.05	0.26	0.03	0.14	0.13	0.05	0.06	0.03	0.23	0.16	0.12
O224	0.17	0.25	0.19	0.39	0.34	0.22	0.06	0.11	0.28	0.18	0.06

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
O225	0.31	0.48	0.27	0.23	0.19	0.05	0.09	0.10	0.08	0.07	0.06
O226	0.58	0.61	0.38	0.40	0.42	0.18	0.09	0.16	0.31	0.22	0.11
O227	0.45	0.51	0.27	0.19	0.12	0.09	0.05	0.04	0.05	0.04	0.02
O228	0.66	0.28	0.20	0.39	0.38	0.19	0.08	0.10	0.30	0.13	0.14
O229	0.10	0.20	0.10	0.19	0.15	0.05	0.04	0.04	0.22	0.06	0.10
O230	0.29	0.47	0.28	0.26	0.35	0.23	0.03	0.05	0.06	0.03	0.07
O231	0.28	0.26	0.31	0.45	0.37	0.21	0.09	0.12	0.17	0.26	0.33
O232	0.28	0.20	0.27	0.46	0.34	0.26	0.10	0.14	0.21	0.32	0.40
O233	0.39	0.37	0.47	0.26	0.27	0.18	0.19	0.20	0.37	0.45	0.45
O234	0.20	0.16	0.16	0.22	0.21	0.18	0.18	0.25	0.32	0.18	0.31
O235	0.24	0.21	0.28	0.33	0.05	0.14	0.18	0.16	0.10	0.50	0.35
O236	0.39	0.30	0.28	0.19	0.06	0.20	0.26	0.36	0.64	0.59	0.65
O237	0.15	0.12	0.05	0.38	0.02	0.19	0.22	0.34	0.60	0.59	0.57
O238	0.15	0.11	0.16	0.11	0.05	0.07	0.07	0.09	0.19	0.16	0.13
O239	0.16	0.07	0.11	0.05	0.06	0.03	0.04	0.12	0.21	0.17	0.12
O240	0.11	0.08	0.05	0.07	0.03	0.04	0.05	0.06	0.14	0.14	0.11
O241	0.11	0.19	0.07	0.06	0.04	0.05	0.09	0.13	0.12	0.07	0.08
O242	0.10	0.23	0.10	0.04	0.20	0.21	0.09	0.16	0.28	0.09	0.22
O243	0.11	0.21	0.09	0.06	0.18	0.15	0.16	0.26	0.48	0.20	0.34
O244	0.13	0.17	0.17	0.06	0.18	0.25	0.13	0.05	0.36	0.14	0.34
O245	0.08	0.10	0.14	0.15	0.29	0.14	0.08	0.18	0.18	0.12	0.28
O246	0.09	0.08	0.21	0.21	0.21	0.16	0.06	0.13	0.20	0.25	0.40
O247	0.12	0.08	0.24	0.28	0.20	0.16	0.07	0.11	0.32	0.06	0.20
O248	0.14	0.06	0.27	0.23	0.13	0.22	0.03	0.16	0.16	0.31	0.44
O249	0.55	0.22	0.32	0.18	0.11	0.06	0.30	0.18	0.47	0.22	0.36
O250	0.37	0.13	0.28	0.26	0.22	0.11	0.25	0.15	0.46	0.26	0.42
O251	0.13	0.14	0.12	0.10	0.25	0.40	0.06	0.16	0.40	0.05	0.39
O252	0.21	0.22	0.45	0.33	0.39	0.17	0.25	0.43	0.64	0.24	0.59
O253	0.80	0.75	0.67	0.49	0.11	0.15	0.30	0.49	0.43	0.12	0.47
O254	0.82	0.81	0.69	0.49	0.15	0.15	0.16	0.24	0.24	0.14	0.50
O255	0.74	0.75	0.66	0.45	0.25	0.22	0.24	0.31	0.22	0.12	0.44
O256	0.14	0.08	0.20	0.08	0.18	0.32	0.11	0.09	0.04	0.05	0.04
O257	0.15	0.10	0.15	0.06	0.17	0.26	0.10	0.07	0.04	0.09	0.06
O258	0.13	0.06	0.30	0.08	0.17	0.27	0.12	0.11	0.02	0.05	0.09
O259	0.12	0.08	0.24	0.07	0.16	0.20	0.08	0.13	0.04	0.09	0.06
O260	0.05	0.03	0.12	0.09	0.16	0.29	0.11	0.04	0.04	0.04	0.03
O261	0.25	0.16	0.10	0.11	0.17	0.15	0.12	0.08	0.19	0.24	0.24
O262	0.18	0.18	0.11	0.07	0.14	0.18	0.08	0.01	0.13	0.21	0.20
O263	0.29	0.15	0.24	0.13	0.12	0.07	0.09	0.05	0.05	0.08	0.13
O264	0.34	0.27	0.30	0.20	0.07	0.11	0.14	0.13	0.17	0.38	0.29
O265	0.17	0.06	0.20	0.09	0.07	0.10	0.08	0.07	0.03	0.10	0.15
O266	0.16	0.04	0.07	0.08	0.12	0.12	0.10	0.04	0.05	0.13	0.20
O267	0.15	0.13	0.12	0.17	0.23	0.08	0.14	0.09	0.33	0.39	0.36
O268	0.17	0.09	0.08	0.10	0.10	0.13	0.08	0.05	0.13	0.33	0.14
O269	0.20	0.06	0.46	0.22	0.13	0.20	0.05	0.04	0.15	0.39	0.30
O270	0.19	0.20	0.42	0.13	0.24	0.23	0.16	0.08	0.26	0.37	0.34
O271	0.10	0.23	0.15	0.17	0.23	0.13	0.15	0.09	0.30	0.40	0.36
O272	0.13	0.16	0.18	0.09	0.11	0.20	0.03	0.08	0.06	0.11	0.16
O273	0.20	0.21	0.14	0.13	0.25	0.15	0.10	0.05	0.20	0.29	0.34
O274	0.23	0.19	0.27	0.09	0.19	0.13	0.11	0.09	0.14	0.13	0.17
O275	0.16	0.15	0.12	0.17	0.22	0.15	0.23	0.22	0.08	0.17	0.27
O276	0.05	0.09	0.09	0.14	0.22	0.13	0.21	0.14	0.05	0.18	0.26
O277	0.06	0.14	0.12	0.09	0.17	0.17	0.28	0.06	0.05	0.26	0.46
O278	0.08	0.07	0.04	0.10	0.18	0.19	0.23	0.16	0.04	0.19	0.25
O279	0.26	0.20	0.04	0.10	0.08	0.18	0.31	0.05	0.03	0.05	0.18
O280	0.23	0.36	0.08	0.16	0.13	0.11	0.25	0.09	0.03	0.05	0.10
O281	0.20	0.36	0.10	0.14	0.09	0.08	0.31	0.14	0.03	0.03	0.12
O282	0.30	0.50	0.30	0.23	0.24	0.11	0.31	0.14	0.09	0.02	0.13

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
O283	0.11	0.25	0.47	0.34	0.17	0.07	0.24	0.10	0.03	0.03	0.15
O284	0.21	0.18	0.22	0.27	0.22	0.16	0.06	0.11	0.08	0.04	0.10
O285	0.15	0.39	0.30	0.23	0.30	0.27	0.12	0.26	0.07	0.04	0.07
O286	0.03	0.24	0.11	0.08	0.08	0.04	0.03	0.05	0.07	0.12	0.04
O287	0.09	0.56	0.24	0.10	0.08	0.13	0.20	0.07	0.14	0.18	0.14
O288	0.05	0.34	0.23	0.20	0.13	0.04	0.04	0.04	0.06	0.09	0.04
O289	0.12	0.58	0.33	0.27	0.16	0.09	0.18	0.13	0.12	0.20	0.13
O290	0.17	0.20	0.37	0.26	0.36	0.30	0.19	0.07	0.07	0.09	0.15
O291	0.08	0.30	0.66	0.58	0.48	0.42	0.20	0.11	0.07	0.12	0.14
O292	0.08	0.17	0.56	0.46	0.40	0.35	0.17	0.06	0.11	0.15	0.11
O293	0.11	0.14	0.38	0.28	0.32	0.31	0.18	0.03	0.08	0.12	0.14
O294	0.02	0.16	0.15	0.14	0.04	0.03	0.06	0.04	0.04	0.09	0.05
O295	0.15	0.31	0.07	0.04	0.12	0.04	0.04	0.13	0.14	0.08	0.08
O296	0.14	0.36	0.09	0.06	0.15	0.13	0.06	0.12	0.12	0.13	0.11
O297	0.09	0.21	0.10	0.05	0.10	0.10	0.05	0.07	0.15	0.10	0.19
O298	0.13	0.48	0.26	0.19	0.27	0.25	0.16	0.21	0.15	0.09	0.16
O299	0.13	0.23	0.17	0.12	0.11	0.11	0.07	0.14	0.19	0.08	0.09
O300	0.11	0.27	0.26	0.16	0.09	0.13	0.11	0.22	0.11	0.05	0.14
O301	0.07	0.13	0.21	0.20	0.42	0.49	0.38	0.15	0.07	0.03	0.05
O302	0.07	0.25	0.23	0.20	0.08	0.05	0.06	0.07	0.11	0.19	0.19
O303	0.02	0.19	0.11	0.12	0.04	0.03	0.03	0.06	0.07	0.17	0.14
O304	0.02	0.23	0.19	0.16	0.17	0.19	0.28	0.17	0.10	0.10	0.11
O305	0.04	0.34	0.19	0.14	0.10	0.13	0.23	0.07	0.07	0.08	0.08
O306	0.24	0.40	0.24	0.17	0.13	0.09	0.12	0.06	0.12	0.16	0.15
O307	0.30	0.35	0.20	0.15	0.28	0.26	0.32	0.06	0.19	0.20	0.19
O308	0.14	0.11	0.19	0.03	0.12	0.12	0.21	0.14	0.10	0.16	0.16
O309	0.24	0.39	0.24	0.09	0.10	0.05	0.10	0.18	0.12	0.06	0.07
O310	0.07	0.07	0.09	0.06	0.05	0.06	0.09	0.18	0.14	0.14	0.06
O311	0.12	0.20	0.10	0.11	0.12	0.13	0.12	0.23	0.22	0.05	0.11
O312	0.13	0.20	0.11	0.21	0.22	0.17	0.15	0.08	0.10	0.08	0.07
O313	0.09	0.08	0.06	0.07	0.07	0.05	0.10	0.05	0.20	0.03	0.06
O314	0.13	0.13	0.08	0.22	0.25	0.21	0.22	0.10	0.10	0.05	0.13
O315	0.07	0.09	0.10	0.19	0.15	0.09	0.14	0.04	0.07	0.04	0.07
O316	0.36	0.58	0.35	0.34	0.38	0.22	0.34	0.08	0.02	0.05	0.05
O317	0.07	0.26	0.12	0.22	0.37	0.30	0.04	0.04	0.05	0.07	0.11
O318	0.07	0.30	0.15	0.24	0.15	0.06	0.05	0.06	0.06	0.13	0.11
O319	0.12	0.32	0.16	0.07	0.21	0.20	0.27	0.09	0.09	0.11	0.12
O320	0.09	0.20	0.13	0.07	0.05	0.03	0.03	0.04	0.08	0.19	0.16
O321	0.12	0.45	0.25	0.13	0.16	0.12	0.15	0.08	0.11	0.15	0.17
O322	0.14	0.41	0.23	0.07	0.12	0.10	0.15	0.10	0.08	0.18	0.20
O323	0.13	0.18	0.11	0.05	0.04	0.03	0.03	0.02	0.04	0.11	0.08
O324	0.13	0.40	0.22	0.14	0.06	0.04	0.03	0.06	0.05	0.20	0.20
O325	0.04	0.04	0.08	0.25	0.47	0.35	0.34	0.18	0.15	0.19	0.13
O326	0.01	0.10	0.06	0.07	0.11	0.16	0.15	0.18	0.13	0.08	0.05
O327	0.06	0.04	0.09	0.25	0.37	0.21	0.24	0.32	0.24	0.04	0.11
O328	0.15	0.17	0.13	0.11	0.11	0.21	0.14	0.14	0.17	0.07	0.05
O329	0.05	0.06	0.04	0.50	0.49	0.24	0.27	0.40	0.43	0.14	0.13
O330	0.02	0.03	0.06	0.23	0.26	0.15	0.20	0.03	0.30	0.02	0.03
O331	0.07	0.16	0.07	0.16	0.27	0.17	0.21	0.10	0.23	0.08	0.06
O332	0.08	0.10	0.14	0.15	0.18	0.17	0.12	0.12	0.19	0.04	0.07
O333	0.08	0.06	0.13	0.11	0.22	0.19	0.10	0.14	0.20	0.05	0.10
O334	0.23	0.44	0.17	0.31	0.17	0.09	0.28	0.11	0.15	0.05	0.09
O335	0.26	0.46	0.22	0.37	0.28	0.19	0.21	0.13	0.07	0.15	0.05
O336	0.54	0.64	0.38	0.37	0.18	0.09	0.32	0.19	0.26	0.12	0.06
O337	0.41	0.60	0.39	0.43	0.26	0.16	0.30	0.08	0.23	0.05	0.12
O338	0.76	0.41	0.32	0.33	0.26	0.24	0.11	0.18	0.43	0.39	0.27
O339	0.76	0.41	0.37	0.37	0.28	0.24	0.13	0.15	0.39	0.37	0.21
O340	0.60	0.30	0.25	0.26	0.22	0.18	0.07	0.13	0.31	0.22	0.16

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
O341	0.56	0.24	0.27	0.30	0.24	0.20	0.08	0.08	0.28	0.15	0.11
O342	0.10	0.14	0.09	0.08	0.05	0.08	0.05	0.05	0.09	0.04	0.18
O343	0.10	0.20	0.12	0.11	0.10	0.20	0.21	0.09	0.12	0.09	0.26
O344	0.12	0.15	0.08	0.19	0.13	0.05	0.07	0.04	0.07	0.22	0.31
O345	0.17	0.06	0.36	0.46	0.40	0.28	0.26	0.09	0.08	0.06	0.40
O346	0.39	0.16	0.10	0.13	0.15	0.17	0.05	0.02	0.08	0.06	0.07
O347	0.15	0.05	0.18	0.24	0.19	0.12	0.12	0.04	0.17	0.20	0.27
O348	0.26	0.11	0.47	0.36	0.30	0.19	0.09	0.08	0.15	0.20	0.42
O349	0.43	0.31	0.31	0.27	0.26	0.12	0.19	0.06	0.21	0.21	0.20
O350	0.39	0.29	0.55	0.50	0.39	0.16	0.08	0.06	0.23	0.28	0.33
O351	0.40	0.30	0.11	0.10	0.11	0.06	0.06	0.03	0.03	0.06	0.10
O352	0.44	0.15	0.28	0.31	0.29	0.10	0.06	0.02	0.03	0.03	0.05
O353	0.40	0.12	0.46	0.40	0.29	0.07	0.08	0.09	0.05	0.17	0.21
O354	0.21	0.19	0.26	0.26	0.23	0.11	0.13	0.05	0.02	0.12	0.09
O355	0.31	0.13	0.18	0.21	0.18	0.09	0.08	0.02	0.04	0.16	0.30

E.2 Indicative Development Scheme

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
P1	0.21	0.31	0.18	0.14	0.05	0.04	0.11	0.11	0.07	0.07	0.21
P2	0.51	0.56	0.14	0.05	0.04	0.06	0.10	0.07	0.12	0.20	0.39
P3	0.64	0.64	0.31	0.10	0.13	0.25	0.39	0.30	0.34	0.13	0.43
P4	0.65	0.59	0.36	0.01	0.13	0.10	0.11	0.07	0.07	0.20	0.39
P5	0.59	0.36	0.37	0.18	0.13	0.14	0.17	0.20	0.20	0.22	0.30
P6	0.46	0.22	0.25	0.06	0.10	0.11	0.05	0.06	0.05	0.16	0.28
P7	0.41	0.39	0.28	0.06	0.09	0.09	0.03	0.05	0.05	0.03	0.33
P8	0.45	0.48	0.43	0.29	0.19	0.17	0.06	0.04	0.04	0.06	0.16
P9	0.49	0.48	0.55	0.40	0.38	0.35	0.04	0.02	0.07	0.06	0.11
P10	0.50	0.50	0.55	0.39	0.49	0.49	0.03	0.02	0.07	0.04	0.17
P11	0.49	0.46	0.51	0.37	0.48	0.51	0.16	0.02	0.08	0.05	0.24
P12	0.37	0.32	0.39	0.34	0.47	0.43	0.16	0.01	0.07	0.07	0.35
P13	0.14	0.27	0.21	0.26	0.38	0.23	0.22	0.13	0.11	0.05	0.19
P14	0.54	0.62	0.47	0.27	0.53	0.27	0.24	0.20	0.22	0.07	0.28
P15	0.58	0.66	0.61	0.54	0.66	0.37	0.22	0.20	0.26	0.08	0.26
P16	0.53	0.60	0.63	0.59	0.45	0.23	0.27	0.16	0.24	0.06	0.20
P17	0.50	0.72	0.69	0.66	0.53	0.18	0.26	0.22	0.32	0.08	0.21
P18	0.58	0.80	0.69	0.68	0.49	0.17	0.32	0.28	0.41	0.10	0.37
P19	0.34	0.71	0.65	0.60	0.42	0.14	0.37	0.34	0.52	0.25	0.44
P20	0.33	0.44	0.56	0.50	0.37	0.17	0.34	0.32	0.49	0.28	0.35
P21	0.32	0.38	0.41	0.42	0.29	0.12	0.33	0.25	0.39	0.23	0.22
P22	0.10	0.14	0.15	0.10	0.07	0.19	0.07	0.08	0.27	0.16	0.24
P23	0.52	0.54	0.16	0.34	0.20	0.26	0.25	0.07	0.38	0.15	0.32
P24	0.13	0.18	0.07	0.37	0.13	0.27	0.38	0.14	0.45	0.15	0.45
P25	0.11	0.27	0.05	0.29	0.05	0.30	0.50	0.25	0.48	0.11	0.45
P26	0.11	0.08	0.05	0.05	0.04	0.34	0.51	0.26	0.52	0.09	0.42
P27	0.07	0.13	0.11	0.14	0.10	0.29	0.39	0.28	0.38	0.04	0.27
P28	0.87	0.69	0.42	0.19	0.10	0.28	0.31	0.17	0.27	0.16	0.26
P29	0.49	0.36	0.36	0.22	0.19	0.10	0.10	0.25	0.22	0.23	0.16
P30	0.69	0.57	0.38	0.24	0.21	0.17	0.30	0.21	0.25	0.14	0.24
P31	0.48	0.33	0.51	0.43	0.34	0.02	0.27	0.08	0.23	0.04	0.32
P32	0.70	0.55	0.33	0.29	0.26	0.20	0.09	0.11	0.15	0.14	0.29
P33	0.59	0.50	0.38	0.40	0.38	0.13	0.21	0.16	0.20	0.17	0.34
P34	0.60	0.50	0.33	0.48	0.42	0.43	0.08	0.16	0.25	0.20	0.41
P35	0.69	0.59	0.47	0.43	0.22	0.16	0.05	0.20	0.31	0.22	0.50
P36	0.51	0.43	0.39	0.54	0.19	0.12	0.03	0.17	0.28	0.20	0.45
P37	0.35	0.27	0.24	0.40	0.53	0.50	0.08	0.12	0.25	0.16	0.39
P38	0.39	0.35	0.23	0.15	0.34	0.48	0.33	0.09	0.21	0.13	0.23
P39	0.37	0.45	0.23	0.12	0.28	0.37	0.42	0.22	0.14	0.11	0.11
P40	0.49	0.55	0.19	0.09	0.38	0.60	0.49	0.19	0.13	0.08	0.07
P41	0.56	0.59	0.23	0.18	0.38	0.62	0.54	0.20	0.11	0.02	0.03
P42	0.47	0.34	0.17	0.28	0.44	0.71	0.44	0.18	0.16	0.05	0.01
P43	0.70	0.55	0.23	0.23	0.26	0.34	0.21	0.09	0.35	0.12	0.09
P44	0.80	0.62	0.29	0.21	0.26	0.43	0.42	0.08	0.08	0.03	0.09
P45	0.90	0.69	0.42	0.16	0.28	0.46	0.48	0.22	0.08	0.04	0.11
P46	0.71	0.56	0.48	0.38	0.13	0.28	0.33	0.22	0.24	0.07	0.09
P47	0.44	0.44	0.20	0.22	0.16	0.12	0.41	0.28	0.11	0.08	0.04
P48	0.63	0.35	0.27	0.20	0.14	0.24	0.26	0.06	0.17	0.15	0.15
P49	0.33	0.06	0.15	0.22	0.23	0.26	0.13	0.08	0.08	0.11	0.12
P50	0.64	0.37	0.31	0.36	0.30	0.31	0.43	0.30	0.15	0.08	0.12
P51	0.95	0.61	0.44	0.31	0.11	0.29	0.57	0.31	0.63	0.28	0.05
P52	0.88	0.56	0.45	0.56	0.24	0.20	0.46	0.25	0.59	0.27	0.05
P53	0.18	0.42	0.54	0.73	0.38	0.22	0.33	0.24	0.64	0.32	0.13
P54	0.10	0.35	0.62	0.79	0.43	0.26	0.27	0.22	0.67	0.35	0.10
P55	0.10	0.15	0.66	0.81	0.46	0.29	0.21	0.19	0.65	0.37	0.11
P56	0.04	0.06	0.71	0.83	0.49	0.30	0.17	0.16	0.57	0.37	0.10

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
P57	0.02	0.06	0.69	0.83	0.54	0.34	0.08	0.10	0.49	0.39	0.17
P58	0.07	0.05	0.65	0.84	0.66	0.50	0.27	0.20	0.64	0.54	0.38
P59	0.07	0.05	0.35	0.70	0.69	0.60	0.55	0.25	0.40	0.21	0.23
P60	0.28	0.39	0.46	0.55	0.31	0.29	0.21	0.30	0.57	0.19	0.26
P61	0.13	0.07	0.12	0.06	0.12	0.14	0.23	0.18	0.25	0.05	0.29
P62	0.11	0.12	0.18	0.11	0.08	0.10	0.33	0.21	0.41	0.16	0.19
P63	0.33	0.48	0.36	0.44	0.40	0.07	0.25	0.25	0.56	0.12	0.22
P64	0.26	0.20	0.46	0.46	0.52	0.46	0.27	0.18	0.48	0.14	0.28
O1	0.35	0.12	0.40	0.48	0.30	0.10	0.24	0.13	0.20	0.17	0.12
O2	0.49	0.08	0.54	0.41	0.22	0.11	0.21	0.11	0.16	0.13	0.10
O3	0.54	0.19	0.58	0.33	0.15	0.32	0.38	0.18	0.22	0.09	0.03
O4	0.64	0.33	0.64	0.53	0.33	0.21	0.13	0.13	0.20	0.11	0.18
O5	0.43	0.33	0.55	0.56	0.36	0.18	0.25	0.12	0.19	0.08	0.12
O6	0.38	0.29	0.32	0.32	0.27	0.20	0.28	0.14	0.22	0.12	0.28
O7	0.22	0.29	0.27	0.30	0.24	0.09	0.17	0.10	0.15	0.13	0.27
O8	0.34	0.27	0.11	0.11	0.13	0.11	0.25	0.06	0.05	0.19	0.24
O9	0.45	0.30	0.26	0.25	0.23	0.18	0.31	0.05	0.06	0.08	0.13
O10	0.47	0.25	0.45	0.42	0.33	0.09	0.27	0.04	0.17	0.25	0.32
O11	0.55	0.38	0.40	0.36	0.24	0.20	0.25	0.07	0.27	0.37	0.41
O12	0.32	0.26	0.45	0.36	0.22	0.34	0.16	0.03	0.12	0.09	0.21
O13	0.16	0.35	0.45	0.37	0.39	0.38	0.31	0.21	0.55	0.46	0.57
O14	0.09	0.27	0.47	0.47	0.40	0.40	0.26	0.27	0.58	0.56	0.60
O15	0.54	0.43	0.28	0.47	0.45	0.44	0.10	0.14	0.45	0.36	0.49
O16	0.52	0.44	0.32	0.46	0.46	0.44	0.15	0.20	0.48	0.22	0.51
O17	0.48	0.44	0.35	0.43	0.46	0.44	0.12	0.23	0.50	0.35	0.54
O18	0.37	0.41	0.35	0.40	0.44	0.40	0.17	0.23	0.47	0.49	0.51
O19	0.35	0.42	0.21	0.35	0.44	0.39	0.26	0.22	0.46	0.47	0.49
O20	0.47	0.22	0.44	0.31	0.37	0.38	0.32	0.18	0.30	0.20	0.33
O21	0.33	0.08	0.16	0.15	0.11	0.36	0.32	0.07	0.30	0.33	0.34
O22	0.28	0.22	0.36	0.39	0.28	0.25	0.35	0.09	0.40	0.43	0.41
O23	0.43	0.35	0.50	0.54	0.41	0.25	0.35	0.09	0.42	0.42	0.40
O24	0.48	0.41	0.53	0.54	0.42	0.24	0.32	0.09	0.41	0.36	0.30
O25	0.49	0.44	0.49	0.49	0.38	0.23	0.28	0.08	0.44	0.34	0.21
O26	0.52	0.45	0.43	0.44	0.37	0.24	0.26	0.05	0.50	0.36	0.21
O27	0.48	0.47	0.32	0.36	0.35	0.28	0.26	0.16	0.50	0.39	0.23
O28	0.40	0.44	0.24	0.32	0.33	0.28	0.19	0.20	0.50	0.41	0.25
O29	0.37	0.42	0.18	0.30	0.30	0.26	0.12	0.22	0.51	0.43	0.26
O30	0.06	0.41	0.27	0.32	0.45	0.35	0.34	0.22	0.42	0.41	0.46
O31	0.09	0.34	0.35	0.46	0.39	0.36	0.22	0.24	0.40	0.49	0.45
O32	0.08	0.03	0.14	0.11	0.12	0.12	0.30	0.18	0.23	0.37	0.24
O33	0.09	0.07	0.21	0.18	0.14	0.14	0.25	0.23	0.27	0.42	0.32
O34	0.12	0.12	0.16	0.14	0.26	0.43	0.35	0.26	0.34	0.44	0.44
O35	0.13	0.12	0.19	0.32	0.44	0.46	0.38	0.27	0.34	0.43	0.43
O36	0.14	0.11	0.23	0.40	0.49	0.47	0.44	0.26	0.34	0.41	0.42
O37	0.15	0.13	0.26	0.43	0.49	0.48	0.47	0.25	0.33	0.42	0.42
O38	0.16	0.13	0.30	0.46	0.52	0.50	0.50	0.25	0.33	0.43	0.44
O39	0.17	0.13	0.31	0.48	0.54	0.50	0.52	0.22	0.33	0.41	0.44
O40	0.17	0.13	0.29	0.46	0.52	0.48	0.52	0.17	0.31	0.36	0.40
O41	0.15	0.14	0.26	0.43	0.49	0.46	0.49	0.12	0.29	0.25	0.33
O42	0.12	0.19	0.27	0.44	0.49	0.44	0.46	0.10	0.24	0.14	0.13
O43	0.11	0.14	0.20	0.06	0.33	0.25	0.18	0.28	0.10	0.04	0.19
O44	0.43	0.22	0.21	0.09	0.29	0.28	0.22	0.34	0.19	0.04	0.20
O45	0.51	0.21	0.03	0.03	0.20	0.32	0.21	0.42	0.26	0.02	0.17
O46	0.12	0.16	0.11	0.05	0.15	0.25	0.27	0.48	0.30	0.01	0.19
O47	0.82	0.73	0.55	0.33	0.09	0.19	0.25	0.45	0.27	0.03	0.22
O48	0.83	0.71	0.55	0.29	0.18	0.28	0.36	0.37	0.18	0.04	0.08
O49	0.81	0.71	0.55	0.32	0.25	0.29	0.37	0.38	0.19	0.04	0.08
O50	0.78	0.71	0.55	0.33	0.30	0.32	0.38	0.38	0.19	0.03	0.08

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
O51	0.75	0.70	0.54	0.34	0.33	0.34	0.39	0.38	0.18	0.03	0.09
O52	0.36	0.40	0.54	0.45	0.28	0.18	0.12	0.25	0.11	0.08	0.13
O53	0.44	0.45	0.59	0.54	0.34	0.20	0.14	0.22	0.17	0.08	0.18
O54	0.55	0.34	0.53	0.54	0.41	0.24	0.16	0.12	0.15	0.10	0.17
O55	0.75	0.40	0.42	0.46	0.40	0.25	0.19	0.25	0.07	0.09	0.13
O56	0.77	0.60	0.32	0.36	0.39	0.24	0.22	0.30	0.11	0.08	0.13
O57	0.79	0.64	0.30	0.30	0.35	0.26	0.27	0.32	0.11	0.07	0.11
O58	0.80	0.63	0.31	0.25	0.33	0.29	0.31	0.33	0.09	0.06	0.09
O59	0.84	0.57	0.32	0.20	0.34	0.31	0.36	0.36	0.08	0.06	0.08
O60	0.88	0.57	0.36	0.13	0.27	0.35	0.39	0.39	0.07	0.05	0.07
O61	0.92	0.65	0.44	0.16	0.13	0.34	0.41	0.41	0.08	0.05	0.06
O62	0.90	0.69	0.51	0.23	0.16	0.28	0.39	0.41	0.08	0.03	0.06
O63	0.85	0.70	0.54	0.27	0.18	0.26	0.38	0.43	0.13	0.03	0.07
O64	0.83	0.71	0.55	0.29	0.15	0.26	0.32	0.32	0.21	0.04	0.08
O65	0.81	0.72	0.53	0.29	0.17	0.30	0.34	0.42	0.26	0.04	0.08
O66	0.78	0.71	0.52	0.27	0.30	0.29	0.31	0.44	0.26	0.05	0.07
O67	0.81	0.74	0.54	0.22	0.31	0.27	0.30	0.45	0.34	0.05	0.08
O68	0.80	0.75	0.52	0.21	0.30	0.23	0.27	0.41	0.32	0.05	0.11
O69	0.76	0.72	0.47	0.31	0.34	0.23	0.24	0.34	0.24	0.05	0.13
O70	0.75	0.71	0.42	0.39	0.40	0.24	0.21	0.28	0.15	0.06	0.14
O71	0.74	0.70	0.40	0.44	0.44	0.25	0.18	0.24	0.09	0.07	0.16
O72	0.72	0.68	0.41	0.51	0.47	0.25	0.17	0.21	0.06	0.08	0.18
O73	0.53	0.62	0.67	0.56	0.33	0.08	0.18	0.51	0.28	0.32	0.17
O74	0.55	0.62	0.66	0.55	0.32	0.09	0.17	0.50	0.23	0.32	0.15
O75	0.58	0.63	0.66	0.55	0.34	0.10	0.15	0.39	0.22	0.32	0.15
O76	0.64	0.57	0.69	0.56	0.35	0.13	0.14	0.30	0.17	0.29	0.12
O77	0.75	0.56	0.73	0.59	0.38	0.18	0.08	0.15	0.23	0.16	0.09
O78	0.86	0.47	0.78	0.72	0.49	0.29	0.15	0.32	0.12	0.16	0.15
O79	0.83	0.63	0.71	0.75	0.52	0.28	0.14	0.17	0.11	0.15	0.19
O80	0.78	0.68	0.51	0.62	0.46	0.22	0.17	0.21	0.07	0.10	0.19
O81	0.63	0.66	0.37	0.45	0.42	0.21	0.12	0.21	0.07	0.07	0.17
O82	0.60	0.68	0.36	0.39	0.42	0.23	0.08	0.15	0.14	0.06	0.17
O83	0.66	0.65	0.36	0.35	0.39	0.24	0.11	0.13	0.24	0.05	0.16
O84	0.26	0.26	0.40	0.35	0.42	0.27	0.13	0.08	0.28	0.04	0.17
O85	0.43	0.10	0.26	0.30	0.42	0.30	0.16	0.22	0.19	0.03	0.15
O86	0.53	0.20	0.15	0.14	0.37	0.28	0.16	0.33	0.21	0.02	0.06
O87	0.16	0.20	0.09	0.09	0.33	0.28	0.21	0.29	0.13	0.02	0.12
O88	0.17	0.14	0.18	0.11	0.22	0.19	0.27	0.19	0.18	0.06	0.20
O89	0.20	0.60	0.31	0.15	0.15	0.12	0.16	0.05	0.19	0.08	0.30
O90	0.24	0.45	0.36	0.14	0.14	0.14	0.25	0.11	0.20	0.07	0.32
O91	0.25	0.31	0.35	0.09	0.04	0.25	0.15	0.12	0.21	0.07	0.30
O92	0.26	0.23	0.30	0.07	0.16	0.26	0.08	0.16	0.23	0.10	0.30
O93	0.29	0.39	0.27	0.20	0.24	0.12	0.13	0.20	0.25	0.14	0.36
O94	0.45	0.50	0.41	0.34	0.39	0.18	0.21	0.21	0.28	0.18	0.43
O95	0.61	0.64	0.52	0.50	0.42	0.25	0.25	0.23	0.31	0.20	0.48
O96	0.60	0.65	0.55	0.49	0.32	0.22	0.21	0.22	0.28	0.20	0.41
O97	0.62	0.66	0.63	0.62	0.46	0.12	0.24	0.22	0.26	0.20	0.35
O98	0.71	0.70	0.59	0.56	0.42	0.14	0.26	0.24	0.25	0.20	0.33
O99	0.67	0.67	0.58	0.56	0.40	0.06	0.29	0.26	0.29	0.21	0.36
O100	0.72	0.69	0.57	0.52	0.37	0.07	0.27	0.25	0.26	0.22	0.31
O101	0.61	0.57	0.43	0.40	0.28	0.07	0.09	0.17	0.22	0.21	0.19
O102	0.77	0.69	0.52	0.44	0.30	0.17	0.24	0.25	0.40	0.22	0.28
O103	0.67	0.60	0.39	0.38	0.27	0.20	0.29	0.11	0.37	0.07	0.21
O104	0.68	0.57	0.33	0.31	0.21	0.24	0.37	0.15	0.42	0.04	0.23
O105	0.59	0.42	0.30	0.22	0.15	0.12	0.37	0.21	0.37	0.06	0.27
O106	0.27	0.28	0.18	0.13	0.14	0.10	0.29	0.25	0.28	0.05	0.26
O107	0.14	0.04	0.06	0.06	0.16	0.11	0.22	0.27	0.21	0.12	0.26
O108	0.18	0.04	0.09	0.09	0.20	0.08	0.14	0.28	0.18	0.16	0.27

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
O109	0.15	0.01	0.06	0.10	0.22	0.07	0.10	0.26	0.17	0.17	0.26
O110	0.22	0.04	0.03	0.08	0.22	0.13	0.19	0.24	0.14	0.17	0.28
O111	0.25	0.08	0.04	0.10	0.14	0.17	0.23	0.19	0.08	0.16	0.32
O112	0.14	0.11	0.04	0.05	0.16	0.07	0.04	0.19	0.02	0.05	0.27
O113	0.10	0.03	0.10	0.09	0.16	0.13	0.11	0.17	0.16	0.27	0.41
O114	0.07	0.04	0.11	0.09	0.10	0.17	0.10	0.16	0.20	0.31	0.50
O115	0.06	0.06	0.10	0.11	0.09	0.20	0.07	0.04	0.23	0.25	0.34
O116	0.05	0.17	0.06	0.13	0.11	0.21	0.22	0.18	0.27	0.18	0.21
O117	0.08	0.28	0.03	0.13	0.13	0.19	0.28	0.29	0.29	0.27	0.30
O118	0.18	0.33	0.02	0.17	0.13	0.14	0.25	0.29	0.27	0.18	0.18
O119	0.20	0.25	0.06	0.14	0.09	0.07	0.30	0.37	0.29	0.41	0.40
O120	0.43	0.09	0.08	0.05	0.10	0.25	0.24	0.17	0.22	0.57	0.68
O121	0.11	0.15	0.10	0.03	0.10	0.22	0.17	0.11	0.17	0.49	0.63
O122	0.19	0.25	0.10	0.04	0.09	0.21	0.21	0.09	0.10	0.16	0.54
O123	0.14	0.31	0.10	0.08	0.10	0.21	0.24	0.09	0.18	0.10	0.47
O124	0.19	0.39	0.07	0.08	0.10	0.20	0.27	0.12	0.21	0.07	0.38
O125	0.56	0.62	0.19	0.23	0.06	0.05	0.33	0.21	0.34	0.08	0.21
O126	0.11	0.06	0.04	0.12	0.05	0.10	0.24	0.06	0.23	0.06	0.33
O127	0.12	0.15	0.24	0.12	0.11	0.06	0.32	0.27	0.29	0.03	0.25
O128	0.17	0.16	0.23	0.07	0.04	0.03	0.12	0.33	0.13	0.03	0.18
O129	0.09	0.10	0.17	0.02	0.07	0.09	0.06	0.31	0.12	0.04	0.32
O130	0.07	0.14	0.14	0.03	0.12	0.06	0.07	0.27	0.09	0.03	0.34
O131	0.26	0.10	0.14	0.06	0.07	0.08	0.04	0.24	0.07	0.02	0.30
O132	0.17	0.09	0.15	0.03	0.03	0.08	0.03	0.22	0.09	0.04	0.22
O133	0.22	0.26	0.16	0.08	0.09	0.12	0.04	0.12	0.14	0.05	0.32
O134	0.21	0.53	0.10	0.11	0.09	0.19	0.23	0.11	0.22	0.09	0.36
O135	0.09	0.35	0.06	0.12	0.10	0.12	0.18	0.13	0.22	0.09	0.24
O136	0.20	0.21	0.09	0.11	0.10	0.10	0.13	0.06	0.07	0.10	0.06
O137	0.29	0.20	0.06	0.13	0.13	0.04	0.11	0.12	0.15	0.11	0.24
O138	0.34	0.15	0.09	0.16	0.15	0.08	0.07	0.08	0.19	0.17	0.37
O139	0.36	0.06	0.30	0.14	0.12	0.07	0.11	0.15	0.20	0.21	0.31
O140	0.21	0.13	0.20	0.12	0.10	0.07	0.12	0.12	0.25	0.34	0.39
O141	0.29	0.17	0.14	0.12	0.11	0.07	0.10	0.10	0.29	0.35	0.36
O142	0.35	0.18	0.57	0.49	0.45	0.25	0.16	0.26	0.11	0.19	0.37
O143	0.06	0.24	0.60	0.50	0.46	0.28	0.22	0.08	0.15	0.14	0.17
O144	0.06	0.26	0.45	0.41	0.41	0.27	0.24	0.10	0.12	0.10	0.07
O145	0.09	0.27	0.40	0.36	0.42	0.25	0.21	0.12	0.10	0.02	0.08
O146	0.47	0.41	0.45	0.34	0.25	0.16	0.11	0.24	0.07	0.10	0.15
O147	0.53	0.21	0.57	0.43	0.32	0.19	0.13	0.23	0.07	0.05	0.15
O148	0.55	0.07	0.65	0.50	0.38	0.21	0.15	0.24	0.08	0.04	0.06
O149	0.55	0.12	0.65	0.50	0.41	0.23	0.17	0.25	0.06	0.05	0.06
O150	0.53	0.18	0.44	0.37	0.34	0.19	0.17	0.26	0.07	0.06	0.05
O151	0.51	0.21	0.52	0.45	0.40	0.22	0.09	0.30	0.11	0.18	0.35
O152	0.43	0.34	0.74	0.53	0.45	0.24	0.14	0.28	0.22	0.17	0.45
O153	0.40	0.31	0.49	0.15	0.29	0.12	0.12	0.27	0.18	0.08	0.46
O154	0.31	0.27	0.33	0.09	0.24	0.09	0.05	0.27	0.20	0.07	0.42
O155	0.32	0.63	0.28	0.10	0.12	0.07	0.11	0.29	0.12	0.13	0.37
O156	0.38	0.19	0.12	0.04	0.12	0.06	0.14	0.31	0.04	0.08	0.26
O157	0.18	0.29	0.21	0.01	0.13	0.18	0.06	0.29	0.11	0.13	0.19
O158	0.39	0.60	0.22	0.05	0.13	0.27	0.17	0.29	0.17	0.12	0.21
O159	0.57	0.62	0.14	0.20	0.09	0.13	0.18	0.29	0.17	0.07	0.25
O160	0.53	0.43	0.12	0.17	0.14	0.09	0.13	0.11	0.04	0.09	0.18
O161	0.61	0.60	0.08	0.18	0.16	0.01	0.11	0.11	0.11	0.23	0.50
O162	0.68	0.62	0.07	0.10	0.16	0.24	0.25	0.27	0.27	0.19	0.35
O163	0.64	0.47	0.33	0.06	0.14	0.04	0.13	0.11	0.06	0.24	0.26
O164	0.53	0.46	0.51	0.15	0.12	0.16	0.24	0.05	0.02	0.15	0.27
O165	0.37	0.69	0.59	0.24	0.07	0.21	0.04	0.04	0.12	0.03	0.29
O166	0.59	0.63	0.60	0.38	0.29	0.29	0.05	0.05	0.05	0.07	0.15

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
O167	0.44	0.37	0.50	0.41	0.45	0.41	0.03	0.03	0.01	0.05	0.12
O168	0.06	0.11	0.16	0.49	0.28	0.21	0.11	0.21	0.25	0.14	0.19
O169	0.19	0.07	0.44	0.46	0.24	0.13	0.12	0.26	0.25	0.17	0.19
O170	0.24	0.40	0.32	0.35	0.26	0.08	0.16	0.29	0.36	0.19	0.21
O171	0.18	0.31	0.38	0.35	0.20	0.11	0.10	0.18	0.22	0.14	0.19
O172	0.15	0.45	0.46	0.44	0.28	0.05	0.14	0.27	0.28	0.19	0.15
O173	0.15	0.17	0.51	0.41	0.30	0.20	0.12	0.14	0.29	0.18	0.25
O174	0.31	0.15	0.43	0.38	0.27	0.21	0.14	0.20	0.25	0.08	0.05
O175	0.37	0.11	0.32	0.29	0.18	0.29	0.17	0.33	0.38	0.17	0.17
O176	0.52	0.44	0.38	0.28	0.22	0.05	0.08	0.32	0.15	0.12	0.12
O177	0.53	0.41	0.61	0.57	0.34	0.13	0.11	0.16	0.34	0.16	0.17
O178	0.45	0.27	0.24	0.31	0.30	0.16	0.13	0.18	0.16	0.24	0.23
O179	0.63	0.33	0.22	0.10	0.13	0.21	0.21	0.30	0.24	0.26	0.18
O180	0.90	0.62	0.83	0.70	0.45	0.22	0.25	0.44	0.42	0.43	0.27
O181	0.49	0.26	0.34	0.36	0.48	0.26	0.23	0.37	0.37	0.21	0.03
O182	0.85	0.64	0.61	0.50	0.24	0.19	0.22	0.25	0.21	0.14	0.09
O183	0.76	0.66	0.47	0.55	0.32	0.18	0.14	0.14	0.03	0.11	0.17
O184	0.66	0.66	0.39	0.48	0.35	0.13	0.16	0.24	0.04	0.08	0.17
O185	0.21	0.16	0.11	0.40	0.31	0.14	0.04	0.15	0.06	0.07	0.18
O186	0.21	0.21	0.14	0.35	0.29	0.23	0.05	0.11	0.09	0.05	0.19
O187	0.29	0.32	0.04	0.07	0.13	0.20	0.04	0.09	0.15	0.03	0.04
O188	0.31	0.24	0.19	0.08	0.08	0.17	0.07	0.10	0.13	0.05	0.07
O189	0.28	0.30	0.04	0.11	0.03	0.07	0.10	0.04	0.22	0.04	0.08
O190	0.14	0.09	0.07	0.09	0.07	0.09	0.13	0.07	0.08	0.05	0.05
O191	0.10	0.05	0.02	0.08	0.05	0.12	0.06	0.20	0.11	0.09	0.05
O192	0.10	0.07	0.05	0.17	0.12	0.21	0.09	0.09	0.18	0.04	0.03
O193	0.21	0.16	0.10	0.03	0.10	0.15	0.28	0.08	0.31	0.17	0.16
O194	0.10	0.10	0.07	0.27	0.28	0.24	0.12	0.15	0.09	0.06	0.06
O195	0.77	0.54	0.90	0.89	0.41	0.11	0.04	0.06	0.16	0.21	0.16
O196	0.90	0.73	0.65	0.71	0.45	0.12	0.21	0.21	0.08	0.13	0.18
O197	0.48	0.48	0.58	0.50	0.27	0.21	0.08	0.12	0.10	0.05	0.19
O198	0.70	0.62	0.59	0.46	0.27	0.15	0.16	0.36	0.36	0.32	0.37
O199	0.36	0.09	0.25	0.18	0.12	0.16	0.17	0.21	0.29	0.03	0.12
O200	0.07	0.20	0.28	0.22	0.15	0.08	0.08	0.17	0.09	0.06	0.10
O201	0.10	0.09	0.20	0.18	0.31	0.18	0.17	0.41	0.35	0.06	0.09
O202	0.19	0.15	0.29	0.16	0.14	0.14	0.14	0.36	0.09	0.16	0.25
O203	0.28	0.20	0.08	0.13	0.07	0.06	0.17	0.28	0.20	0.22	0.07
O204	0.14	0.16	0.06	0.07	0.11	0.09	0.13	0.22	0.16	0.16	0.07
O205	0.39	0.33	0.30	0.21	0.13	0.05	0.15	0.32	0.30	0.16	0.10
O206	0.13	0.09	0.11	0.13	0.09	0.08	0.03	0.09	0.03	0.03	0.04
O207	0.11	0.13	0.20	0.15	0.02	0.05	0.05	0.08	0.10	0.10	0.08
O208	0.15	0.13	0.19	0.11	0.07	0.06	0.12	0.12	0.11	0.15	0.15
O209	0.14	0.05	0.26	0.15	0.07	0.13	0.15	0.13	0.20	0.28	0.22
O210	0.46	0.29	0.39	0.18	0.14	0.16	0.13	0.15	0.19	0.16	0.14
O211	0.36	0.20	0.34	0.11	0.04	0.11	0.13	0.15	0.20	0.04	0.06
O212	0.41	0.31	0.45	0.21	0.11	0.04	0.04	0.05	0.03	0.08	0.05
O213	0.39	0.17	0.46	0.28	0.21	0.08	0.17	0.31	0.13	0.15	0.05
O214	0.28	0.21	0.33	0.07	0.02	0.09	0.06	0.06	0.13	0.18	0.17
O215	0.11	0.17	0.24	0.05	0.09	0.02	0.08	0.08	0.13	0.03	0.04
O216	0.04	0.10	0.08	0.15	0.13	0.06	0.13	0.19	0.14	0.05	0.06
O217	0.26	0.28	0.38	0.18	0.11	0.09	0.04	0.08	0.06	0.05	0.05
O218	0.13	0.10	0.14	0.17	0.05	0.03	0.04	0.04	0.02	0.03	0.01
O219	0.13	0.08	0.12	0.16	0.08	0.09	0.04	0.10	0.10	0.05	0.02
O220	0.23	0.10	0.06	0.06	0.03	0.04	0.06	0.07	0.03	0.05	0.03
O221	0.29	0.20	0.15	0.30	0.12	0.11	0.17	0.42	0.26	0.04	0.14
O222	0.27	0.11	0.09	0.12	0.10	0.06	0.11	0.14	0.11	0.09	0.07
O223	0.30	0.06	0.20	0.11	0.09	0.03	0.05	0.04	0.16	0.07	0.06
O224	0.28	0.37	0.16	0.28	0.27	0.23	0.10	0.12	0.17	0.08	0.12

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
O225	0.25	0.46	0.22	0.18	0.13	0.04	0.08	0.16	0.06	0.05	0.10
O226	0.48	0.55	0.30	0.30	0.34	0.10	0.08	0.19	0.17	0.05	0.16
O227	0.33	0.29	0.15	0.14	0.12	0.03	0.03	0.04	0.04	0.05	0.02
O228	0.25	0.10	0.06	0.28	0.30	0.08	0.06	0.02	0.19	0.03	0.17
O229	0.05	0.08	0.07	0.09	0.18	0.07	0.10	0.10	0.18	0.04	0.04
O230	0.10	0.48	0.21	0.25	0.28	0.10	0.10	0.09	0.19	0.03	0.12
O231	0.31	0.28	0.37	0.33	0.33	0.13	0.07	0.15	0.18	0.32	0.35
O232	0.34	0.17	0.24	0.45	0.31	0.17	0.09	0.17	0.22	0.41	0.42
O233	0.51	0.21	0.49	0.30	0.23	0.07	0.23	0.21	0.38	0.56	0.44
O234	0.27	0.13	0.19	0.28	0.13	0.05	0.19	0.27	0.17	0.30	0.33
O235	0.21	0.21	0.25	0.33	0.13	0.16	0.24	0.16	0.10	0.48	0.24
O236	0.30	0.24	0.43	0.29	0.11	0.14	0.33	0.40	0.65	0.60	0.64
O237	0.21	0.14	0.11	0.14	0.05	0.09	0.30	0.39	0.61	0.51	0.56
O238	0.21	0.11	0.32	0.16	0.10	0.03	0.10	0.16	0.15	0.09	0.09
O239	0.20	0.11	0.09	0.18	0.06	0.05	0.09	0.19	0.16	0.10	0.11
O240	0.30	0.27	0.23	0.16	0.02	0.03	0.13	0.12	0.08	0.05	0.05
O241	0.26	0.12	0.05	0.04	0.07	0.04	0.14	0.12	0.06	0.01	0.03
O242	0.29	0.32	0.17	0.18	0.02	0.07	0.09	0.12	0.29	0.01	0.07
O243	0.11	0.27	0.09	0.15	0.10	0.14	0.20	0.09	0.32	0.01	0.06
O244	0.07	0.24	0.06	0.16	0.13	0.22	0.13	0.12	0.16	0.01	0.06
O245	0.09	0.11	0.08	0.06	0.15	0.17	0.13	0.18	0.19	0.01	0.04
O246	0.09	0.13	0.09	0.05	0.08	0.09	0.07	0.11	0.09	0.02	0.03
O247	0.07	0.17	0.12	0.22	0.16	0.14	0.12	0.16	0.18	0.03	0.03
O248	0.12	0.08	0.15	0.08	0.08	0.14	0.10	0.26	0.03	0.03	0.02
O249	0.31	0.26	0.17	0.20	0.27	0.40	0.40	0.03	0.25	0.02	0.09
O250	0.19	0.15	0.12	0.13	0.17	0.32	0.35	0.06	0.22	0.04	0.10
O251	0.14	0.13	0.09	0.08	0.29	0.41	0.13	0.15	0.23	0.00	0.03
O252	0.16	0.24	0.37	0.24	0.34	0.14	0.21	0.47	0.45	0.01	0.10
O253	0.90	0.69	0.56	0.34	0.17	0.13	0.31	0.53	0.33	0.02	0.19
O254	0.80	0.75	0.63	0.40	0.15	0.10	0.16	0.20	0.17	0.01	0.14
O255	0.71	0.69	0.60	0.38	0.21	0.22	0.22	0.37	0.18	0.02	0.08
O256	0.10	0.05	0.13	0.04	0.04	0.13	0.05	0.06	0.08	0.04	0.04
O257	0.10	0.09	0.06	0.05	0.04	0.09	0.09	0.07	0.06	0.08	0.07
O258	0.16	0.25	0.24	0.09	0.06	0.08	0.10	0.08	0.07	0.10	0.09
O259	0.22	0.09	0.19	0.03	0.07	0.06	0.10	0.10	0.05	0.11	0.08
O260	0.14	0.05	0.09	0.02	0.03	0.09	0.05	0.02	0.03	0.06	0.03
O261	0.19	0.09	0.08	0.11	0.09	0.03	0.16	0.11	0.17	0.17	0.24
O262	0.15	0.14	0.15	0.07	0.06	0.06	0.04	0.03	0.13	0.20	0.18
O263	0.27	0.16	0.22	0.08	0.09	0.03	0.01	0.02	0.07	0.06	0.13
O264	0.34	0.24	0.33	0.11	0.09	0.14	0.24	0.19	0.20	0.31	0.27
O265	0.17	0.07	0.15	0.05	0.06	0.12	0.09	0.08	0.05	0.08	0.14
O266	0.13	0.05	0.07	0.06	0.07	0.08	0.11	0.06	0.03	0.24	0.20
O267	0.16	0.08	0.14	0.11	0.05	0.09	0.13	0.11	0.33	0.37	0.35
O268	0.20	0.04	0.08	0.05	0.06	0.07	0.04	0.08	0.21	0.27	0.12
O269	0.29	0.04	0.36	0.10	0.06	0.11	0.16	0.10	0.24	0.36	0.28
O270	0.35	0.07	0.32	0.08	0.07	0.10	0.16	0.12	0.24	0.32	0.33
O271	0.16	0.11	0.11	0.08	0.06	0.11	0.09	0.11	0.29	0.37	0.35
O272	0.17	0.09	0.19	0.03	0.04	0.05	0.10	0.10	0.02	0.08	0.16
O273	0.21	0.13	0.07	0.11	0.08	0.04	0.14	0.07	0.15	0.24	0.33
O274	0.25	0.11	0.22	0.07	0.06	0.06	0.11	0.10	0.11	0.13	0.17
O275	0.20	0.24	0.16	0.12	0.11	0.12	0.31	0.17	0.04	0.15	0.26
O276	0.09	0.21	0.14	0.07	0.04	0.12	0.20	0.10	0.01	0.16	0.25
O277	0.21	0.16	0.18	0.11	0.06	0.16	0.12	0.07	0.06	0.25	0.44
O278	0.14	0.09	0.05	0.03	0.05	0.16	0.25	0.13	0.01	0.22	0.25
O279	0.26	0.16	0.05	0.10	0.06	0.08	0.06	0.05	0.02	0.05	0.14
O280	0.21	0.32	0.11	0.11	0.10	0.08	0.11	0.08	0.03	0.02	0.06
O281	0.17	0.31	0.10	0.10	0.10	0.06	0.09	0.06	0.02	0.02	0.04
O282	0.27	0.47	0.28	0.22	0.20	0.04	0.09	0.12	0.03	0.02	0.10

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
O283	0.10	0.30	0.47	0.29	0.13	0.15	0.16	0.08	0.05	0.04	0.09
O284	0.19	0.10	0.23	0.25	0.27	0.22	0.24	0.07	0.07	0.06	0.09
O285	0.12	0.39	0.29	0.22	0.21	0.12	0.14	0.17	0.02	0.05	0.08
O286	0.12	0.20	0.10	0.07	0.13	0.10	0.05	0.08	0.08	0.12	0.05
O287	0.17	0.43	0.19	0.06	0.21	0.21	0.11	0.16	0.23	0.15	0.18
O288	0.07	0.30	0.22	0.16	0.21	0.16	0.06	0.06	0.08	0.07	0.04
O289	0.29	0.46	0.29	0.20	0.31	0.27	0.12	0.14	0.22	0.15	0.11
O290	0.13	0.18	0.35	0.24	0.25	0.12	0.05	0.09	0.13	0.09	0.18
O291	0.07	0.42	0.64	0.50	0.47	0.24	0.02	0.13	0.15	0.08	0.13
O292	0.09	0.32	0.54	0.41	0.38	0.19	0.01	0.12	0.19	0.10	0.12
O293	0.12	0.17	0.37	0.28	0.26	0.11	0.02	0.05	0.13	0.07	0.15
O294	0.05	0.20	0.14	0.12	0.09	0.05	0.01	0.07	0.06	0.06	0.04
O295	0.13	0.27	0.05	0.03	0.05	0.06	0.02	0.06	0.07	0.06	0.09
O296	0.15	0.34	0.05	0.03	0.07	0.06	0.03	0.07	0.06	0.09	0.11
O297	0.12	0.21	0.04	0.05	0.04	0.03	0.01	0.04	0.09	0.10	0.19
O298	0.22	0.43	0.09	0.04	0.08	0.08	0.02	0.08	0.07	0.11	0.20
O299	0.11	0.22	0.11	0.02	0.06	0.04	0.01	0.06	0.09	0.07	0.09
O300	0.11	0.25	0.17	0.02	0.06	0.09	0.01	0.07	0.05	0.10	0.15
O301	0.29	0.09	0.13	0.06	0.10	0.07	0.02	0.03	0.02	0.04	0.03
O302	0.20	0.07	0.10	0.09	0.08	0.09	0.05	0.04	0.05	0.18	0.18
O303	0.13	0.03	0.06	0.07	0.06	0.07	0.05	0.03	0.06	0.16	0.13
O304	0.19	0.11	0.07	0.10	0.12	0.26	0.31	0.20	0.11	0.09	0.12
O305	0.06	0.14	0.06	0.06	0.05	0.16	0.23	0.06	0.04	0.09	0.06
O306	0.23	0.17	0.09	0.12	0.06	0.04	0.08	0.04	0.06	0.13	0.15
O307	0.19	0.21	0.10	0.08	0.18	0.22	0.30	0.13	0.05	0.20	0.17
O308	0.09	0.07	0.05	0.04	0.16	0.21	0.26	0.07	0.14	0.15	0.14
O309	0.23	0.11	0.12	0.08	0.06	0.04	0.10	0.14	0.12	0.06	0.05
O310	0.03	0.01	0.03	0.05	0.07	0.03	0.10	0.16	0.11	0.15	0.04
O311	0.06	0.04	0.04	0.18	0.18	0.14	0.11	0.22	0.20	0.05	0.11
O312	0.13	0.05	0.15	0.06	0.17	0.21	0.16	0.09	0.07	0.08	0.05
O313	0.09	0.01	0.06	0.03	0.05	0.06	0.09	0.10	0.19	0.03	0.05
O314	0.07	0.03	0.10	0.13	0.20	0.22	0.21	0.08	0.09	0.04	0.13
O315	0.03	0.02	0.05	0.15	0.22	0.15	0.14	0.04	0.06	0.05	0.03
O316	0.18	0.18	0.09	0.26	0.30	0.35	0.35	0.10	0.16	0.03	0.08
O317	0.02	0.05	0.22	0.03	0.10	0.04	0.03	0.10	0.01	0.05	0.13
O318	0.13	0.07	0.08	0.04	0.02	0.04	0.08	0.05	0.01	0.08	0.09
O319	0.16	0.06	0.07	0.08	0.19	0.25	0.23	0.12	0.08	0.11	0.09
O320	0.08	0.07	0.07	0.06	0.02	0.03	0.03	0.04	0.02	0.16	0.14
O321	0.06	0.08	0.12	0.06	0.10	0.08	0.14	0.08	0.08	0.15	0.15
O322	0.13	0.10	0.16	0.04	0.16	0.16	0.19	0.08	0.09	0.17	0.17
O323	0.13	0.05	0.06	0.06	0.02	0.03	0.03	0.04	0.02	0.11	0.07
O324	0.11	0.03	0.13	0.09	0.05	0.04	0.04	0.06	0.02	0.18	0.17
O325	0.05	0.04	0.05	0.16	0.43	0.34	0.35	0.19	0.14	0.18	0.10
O326	0.06	0.07	0.04	0.08	0.10	0.18	0.13	0.18	0.12	0.07	0.05
O327	0.09	0.05	0.05	0.20	0.35	0.16	0.24	0.29	0.24	0.04	0.06
O328	0.09	0.06	0.07	0.09	0.09	0.21	0.16	0.12	0.16	0.07	0.07
O329	0.06	0.05	0.08	0.47	0.51	0.36	0.32	0.36	0.42	0.12	0.05
O330	0.06	0.02	0.06	0.25	0.28	0.19	0.19	0.05	0.27	0.02	0.01
O331	0.13	0.01	0.05	0.22	0.27	0.19	0.22	0.06	0.22	0.07	0.04
O332	0.05	0.03	0.07	0.24	0.21	0.17	0.13	0.11	0.21	0.03	0.04
O333	0.07	0.05	0.04	0.23	0.21	0.17	0.10	0.10	0.20	0.05	0.05
O334	0.07	0.04	0.13	0.33	0.25	0.12	0.24	0.08	0.18	0.04	0.04
O335	0.16	0.16	0.19	0.27	0.30	0.21	0.20	0.08	0.07	0.10	0.06
O336	0.18	0.16	0.20	0.38	0.31	0.28	0.30	0.20	0.34	0.04	0.04
O337	0.09	0.12	0.07	0.30	0.30	0.17	0.27	0.11	0.28	0.04	0.08
O338	0.24	0.40	0.27	0.32	0.30	0.24	0.16	0.13	0.42	0.38	0.26
O339	0.29	0.40	0.32	0.36	0.31	0.24	0.16	0.10	0.39	0.36	0.20
O340	0.03	0.24	0.20	0.25	0.24	0.16	0.10	0.09	0.31	0.21	0.14

Points	NNE	NE	ENE	E	ESE	SE	SSE	S	SSW	SW	WSW
O341	0.05	0.21	0.23	0.29	0.26	0.18	0.13	0.05	0.27	0.15	0.11
O342	0.13	0.03	0.10	0.09	0.05	0.08	0.05	0.08	0.09	0.04	0.18
O343	0.15	0.04	0.11	0.12	0.08	0.21	0.21	0.06	0.12	0.10	0.27
O344	0.07	0.02	0.07	0.19	0.15	0.04	0.07	0.04	0.07	0.23	0.30
O345	0.21	0.05	0.39	0.44	0.43	0.26	0.29	0.08	0.08	0.06	0.41
O346	0.21	0.18	0.07	0.12	0.15	0.14	0.06	0.02	0.08	0.04	0.07
O347	0.13	0.07	0.18	0.23	0.20	0.12	0.12	0.03	0.17	0.21	0.27
O348	0.21	0.13	0.46	0.33	0.30	0.20	0.11	0.09	0.15	0.20	0.41
O349	0.38	0.29	0.31	0.27	0.25	0.22	0.22	0.09	0.23	0.25	0.27
O350	0.51	0.32	0.52	0.52	0.40	0.25	0.08	0.08	0.25	0.34	0.39
O351	0.29	0.21	0.11	0.10	0.10	0.08	0.10	0.02	0.03	0.06	0.09
O352	0.44	0.23	0.27	0.31	0.27	0.19	0.06	0.05	0.03	0.04	0.06
O353	0.31	0.25	0.44	0.42	0.30	0.12	0.08	0.06	0.04	0.17	0.23
O354	0.40	0.10	0.28	0.24	0.22	0.11	0.13	0.04	0.02	0.12	0.06
O355	0.28	0.13	0.17	0.23	0.18	0.08	0.08	0.01	0.04	0.15	0.32
S1	0.14	0.04	0.03	0.24	0.12	0.17	0.35	0.13	0.45	0.17	0.43
S2	0.50	0.49	0.10	0.11	0.18	0.32	0.38	0.24	0.43	0.16	0.29
S3	0.47	0.44	0.16	0.11	0.09	0.26	0.47	0.30	0.42	0.06	0.14
S4	0.53	0.25	0.23	0.18	0.07	0.18	0.38	0.23	0.24	0.11	0.14
S5	0.43	0.18	0.25	0.08	0.08	0.04	0.01	0.04	0.10	0.15	0.20
S6	0.45	0.34	0.19	0.08	0.07	0.10	0.03	0.05	0.08	0.19	0.28
S7	0.51	0.37	0.14	0.18	0.04	0.08	0.03	0.06	0.11	0.19	0.32
S8	0.50	0.20	0.26	0.26	0.31	0.28	0.14	0.05	0.13	0.17	0.32
S9	0.46	0.25	0.17	0.03	0.06	0.05	0.01	0.02	0.10	0.16	0.36
S10	0.40	0.37	0.15	0.04	0.08	0.03	0.03	0.02	0.06	0.14	0.40
S11	0.26	0.12	0.16	0.51	0.52	0.49	0.21	0.06	0.10	0.02	0.03
S12	0.33	0.25	0.28	0.22	0.18	0.10	0.04	0.03	0.24	0.09	0.04
S13	0.26	0.07	0.39	0.64	0.29	0.14	0.05	0.05	0.18	0.12	0.11
S14	0.16	0.06	0.29	0.43	0.23	0.18	0.16	0.01	0.09	0.08	0.10
S15	0.40	0.10	0.18	0.18	0.17	0.29	0.18	0.06	0.19	0.09	0.09
S16	0.28	0.09	0.13	0.11	0.22	0.28	0.33	0.13	0.10	0.14	0.10
S17	0.03	0.03	0.11	0.09	0.16	0.47	0.25	0.13	0.03	0.19	0.24
S18	0.41	0.34	0.41	0.46	0.38	0.46	0.38	0.12	0.15	0.11	0.09
S19	0.19	0.22	0.21	0.31	0.13	0.46	0.46	0.09	0.06	0.08	0.29
S20	0.15	0.65	0.57	0.72	0.58	0.33	0.28	0.18	0.70	0.33	0.04
S21	0.89	0.29	0.29	0.44	0.47	0.52	0.27	0.16	0.29	0.12	0.08
S22	0.07	0.33	0.45	0.53	0.19	0.42	0.54	0.31	0.57	0.24	0.29
S23	0.13	0.45	0.55	0.72	0.21	0.05	0.09	0.04	0.58	0.30	0.28
S24	0.30	0.40	0.47	0.62	0.13	0.07	0.08	0.03	0.56	0.32	0.30
S25	0.02	0.18	0.34	0.20	0.40	0.46	0.33	0.11	0.46	0.23	0.17
S26	0.53	0.15	0.20	0.14	0.35	0.49	0.44	0.10	0.09	0.16	0.06
S27	0.08	0.22	0.35	0.24	0.54	0.40	0.29	0.05	0.14	0.17	0.13
S28	0.10	0.44	0.55	0.69	0.51	0.18	0.19	0.10	0.17	0.17	0.05
S29	0.20	0.44	0.28	0.68	0.51	0.22	0.22	0.05	0.46	0.24	0.14
S30	0.24	0.22	0.06	0.29	0.33	0.34	0.06	0.05	0.18	0.17	0.16
S31	0.05	0.20	0.17	0.54	0.47	0.44	0.14	0.06	0.24	0.05	0.09
S32	0.09	0.33	0.37	0.57	0.53	0.41	0.03	0.11	0.23	0.07	0.16
S33	0.28	0.41	0.55	0.69	0.53	0.11	0.12	0.09	0.30	0.11	0.02
S34	0.22	0.61	0.45	0.51	0.46	0.23	0.16	0.10	0.50	0.23	0.08
S35	0.04	0.38	0.59	0.64	0.61	0.50	0.19	0.10	0.14	0.08	0.16
S36	0.21	0.55	0.42	0.50	0.44	0.28	0.40	0.08	0.28	0.34	0.20
S37	0.39	0.65	0.57	0.72	0.65	0.48	0.25	0.19	0.67	0.22	0.22
S38	0.46	0.61	0.49	0.55	0.46	0.27	0.13	0.09	0.39	0.10	0.03
S39	0.16	0.65	0.39	0.34	0.50	0.18	0.07	0.04	0.43	0.15	0.06
S40	0.69	0.63	0.28	0.10	0.19	0.30	0.06	0.06	0.38	0.12	0.04