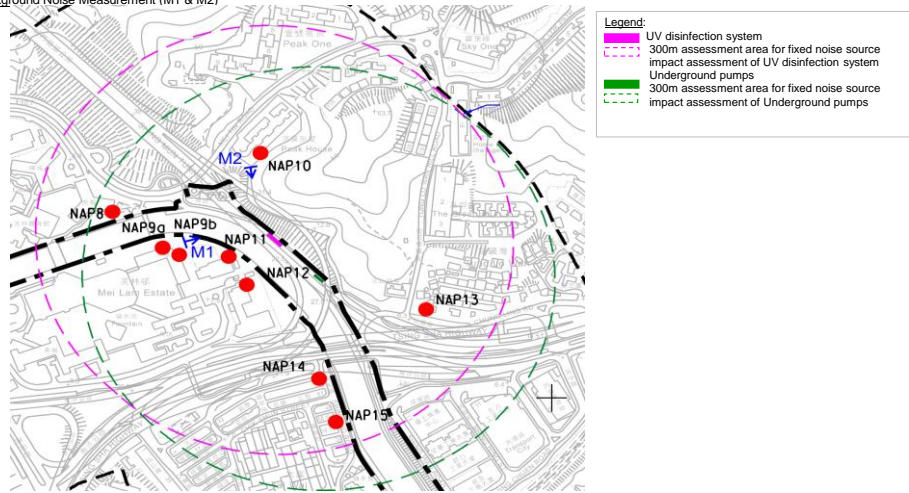


Appendix 4.1 Determination of Fixed Plant Noise Criteria

i. Measurement Results for Prevailing Background Noise Levels

Locations of Prevailing Background Noise Measurement (M1 & M2)



Background Noise Survey Summary

| Measurement Location | Measurement Date     | Time Period             | Duration            | Measurement Method |
|----------------------|----------------------|-------------------------|---------------------|--------------------|
| M1                   | 30-Oct-21 & 1-Nov-21 | Normal Working Day      | Continuous 24 hours | Free-field         |
|                      | 31-Oct-21            | Sunday / Public Holiday |                     |                    |
| M2                   | 6-Nov-21 & 8-Nov-21  | Normal Working Day      | Continuous 24 hours | Free-field         |
|                      | 7-Nov-21             | Sunday / Public Holiday |                     |                    |

Background Noise Measurement Results

| Measurement Location | Description   | Time period <sup>[1]</sup>  | Dominant Noise Source                                       | Measured Noise Levels <sup>[2][3][4]</sup> |
|----------------------|---|-----------------------------|---|--|
|                      |   |                             |   | L <sub>90</sub> (1 hour), dB(A)            |
| M1                   | Mid-stream Tai Wai Nullah near TWGHs Tsoi Wing Sing Primary School and Mei Lam Estate | Daytime (0700 - 1900 hours) | Traffic noise along Shing Mun Tunnel Road.                  | 55 - 60 (55)                               |
|                      |   | Evening (1900 - 2300 hours) |   |  |
| M2                   | Peak House  | Daytime (0700 - 1900 hours) | Traffic noise along Shing Mun Tunnel Road and Mei Tin Road. | 50 - 58 (50)                               |
|                      |   | Evening (1900 - 2300 hours) |   |  |

Note:

[1] There would be no night-time operation (2300 to 0700) for the proposed fixed plants. Only the background noise for day-time / evening (0700 to 2300 hrs) are therefore adopted.

[2] Figure in bracket is the minimum noise level measured during the respective time period.

[3] L<sub>90</sub>(1 hour) is used as a measure of the background noise level.

[4] As the measurements were conducted in free-field condition, +2.5 dB(A) have been added to the measured noise levels to represent the measurement at 1m from a building façade.

Appendix 4.1 Determination of Fixed Plant Noise Criteria

ii. Fixed Plant Noise Criteria Adopted

| NAP<br>[1][2] | Description                                    | Distance from a zone designated as "Industrial" on Approved Sha Tin Outline Zoning Plan (OZP) No. S/ST/36 [3] | Type of Area Containing the Representative NSR                         | Degree to which NSR is affected by Influencing Factor [4][5] | Area Sensitivity Rating | Time Period [6]   | Acceptable Noise Level (ANL), dB(A) | Planning Criteria (ANL-5), dB(A) | Minimum Measured Prevailing Background Noise Level, L <sub>90(1 hour)</sub> dB(A) | Fixed Plant Noise Criteria Adopted [6][7], dB(A) |
|---------------|--|---|--|--|-------------------------|-------------------|-------------------------------------|----------------------------------|---|--|
| NAP8          | Mei Wai House                                  | >250m   | Area other than rural area, low density residential area or urban area | Directly Affected  | C                       | Daytime & Evening | 70                                  | 65                               | 55  | 55   |
| NAP9a         | Mei Yeung House, Mei Lam Estate (North Facade) | >250m   | Area other than rural area, low density residential area or urban area | Directly Affected  | C                       | Daytime & Evening | 70                                  | 65                               | 55  | 55   |
| NAP9b         | Mei Yeung House, Mei Lam Estate (East Facade)  | >250m   | Area other than rural area, low density residential area or urban area | Directly Affected  | C                       | Daytime & Evening | 70                                  | 65                               | 55  | 55   |
| NAP10         | Peak House                                     | >250m   | Low density residential area consisting of low-rise developments       | Directly Affected  | C                       | Daytime & Evening | 70                                  | 65                               | 50  | 50   |
| NAP11         | TWGHs Tsoi Wing Sing Primary School            | >250m   | Area other than rural area, low density residential area or urban area | Directly Affected  | C                       | Daytime & Evening | 70                                  | 65                               | 55  | 55   |
| NAP12         | Buddhist Wong Wan Tin College                  | >250m   | Area other than rural area, low density residential area or urban area | Directly Affected  | C                       | Daytime & Evening | 70                                  | 65                               | 55  | 55   |
| NAP13         | Tung Lo Wan Village                            | Between 100m - 250m   | [3]  | [3]  | B                       | Daytime & Evening | 65                                  | 60                               | 50  | 50   |
| NAP14         | Lin Fung House                                 | <100m   | [3]  | [3]  | C                       | Daytime & Evening | 70                                  | 65                               | 55  | 55   |
| NAP15         | Shing Ho Building                              | <100m   | [3]  | [3]  | C                       | Daytime & Evening | 70                                  | 65                               | 55  | 55   |

[1] Considering that the surrounding environment of NAP8, NAP12, NAP14 and NAP15 is similar to that of NAP9a, NAP9b & NAP11, the background noise levels for daytime & evening measured at NAP9a, NAP9b & NAP11 (measurement location M1) are adopted to represent the background noise levels of NAP8, NAP12, NAP14 and NAP15.

[2] Considering that the surrounding environment of NAP13 is similar to that of NAP10, the background noise levels for daytime & evening measured at NAP10 (measurement location M2) are adopted to represent the background noise levels of NAP13.

[3] Any NSR shall, irrespective of Table 1, be assigned an ASR of "C" if it is within 100 m of a zone designated as "Industrial" or "Industrial Estate" on a statutory Outline Zoning Plan, or an ASR of "B" if it is between 100 m and 250 m from such a zone, except in cases where Table 1 indicates an ASR of "C".

[4] Any industrial area, major road (a road with an annual average daily traffic flow in excess of 30,000) or the area within the boundary of Hong Kong International Airport shall be considered to be an IF according to the IND-TM.

[5] "Directly affected" means that the NSR is at such a location that noise generated by the IF is readily noticeable at the NSR and is a dominant feature of the noise climate of the NSR.

[6] The minimum background noise levels (in L<sub>90(1 hour)</sub> measured in free-field condition) with the addition of +2.5 dB(A) façade correction would be adopted as fixed plant noise criteria if they are lower than the ANL-5 dB(A) planning criteria.

[7] There would be no night-time operation (2300 to 0700) for the proposed fixed plants. Only the noise criteria for day-time / evening (0700 to 2300 hrs) are therefore adopted.