

Appendix 3-13
Sensitivity Test of Cumulative Impacts Due to
Concurrent Construction with Planned “Kam Pok Road
Site” Project

Appendix 3-13 Cumulative Impacts Due to Concurrent Construction with Planned “Kam Pok Road Site” Project

1 Introduction

According to the information obtained from the project proponent of the planned “Kam Pok Road Site” project, site formation works of that project may potentially overlap with the site formation of this Project. Given to the fact that the concerned “Kam Pok Road Site” project is distant away from this Project with a shortest separation distance over 360m between the site boundary of this Project and planned “Kam Pok Road Site Site” project boundary, construction of that project is unlikely to result in any adverse impacts. There is currently no existing ASR immediately adjacent to the two project sites, that may be worst affected by concurrent works of these two projects. Air quality impact of that project will be controlled through the implementation of mitigation measures committed for that project under its EIA study.

Nevertheless, this sensitivity test has been undertaken in order to evaluate potential cumulative impacts due to concurrent construction of these two projects. Air quality impact due to construction works of the planned “Kam Pok Road Site” project has been assessed. Cumulative air pollutants levels have also been calculated accordingly.

2 Construction Programme and Construction Sequence of Planned “Kam Pok Road Site” Project

Information was obtained from the project proponent of the planned “Kam Pok Road Site” project. The concerned construction programme is already presented in **Appendix 3-1B** of the EIA report. According to the best available information, site formation works of that project will commence in April 2016 until first half of November 2016, which may potentially overlap with the site formation of this Project (December 2015 until April 2017).

Since the peak site formation period of this Project is between December 2015 and November 2016 (i.e. 12 months dominated by “filling/ excavation” works) where most of the filling and excavation materials involved during site formation stage are involved, this peak construction period has been taken into account in the cumulative impact assessment in order to provide a worst case scenario in this sensitivity test.

3 Assessment Methodology

3.1 Emission Sources

Since the nature of the planned “Kam Pok Road Site” project is similar to this Project (i.e. land based project involving small houses development), it is expected that the construction scale of that project will be similar to this Project and the major sources of air quality impact during the construction would be fugitive dust emissions during the site formation stage. As such, TSP, RSP and FSP have been identified as the parameters for air quality assessment.

Based on information obtained, construction of that project will be undertaken in phases with only one sub-zone under construction in any one time. Construction area will be reinstated and covered before moving to another sub-zone. This has been taken into account in this assessment (see **Annex 1** for details of construction sequence).

Construction information was obtained from the Project proponent of that project. The following activities have been identified which would attribute to dust emissions due to construction of that project, and have been taken into account in the assessment:

- Removal and unloading of soil materials by excavators;
- Earth loading/ unloading, and stockpiling;
- Bulldozing and surface compaction;
- Wind erosion on exposed ground; and
- Vehicle movements on haul roads

3.2 Emission Strength

It is expected that construction air quality impact of planned “Kam Pok Road Site” project will be controlled through the implementation of mitigation measures committed for that project under its EIA study. As such, emission rates were calculated according to the AP-42 document, with consideration of mitigation measures proposed for that project and those stipulated in the Air Pollution Control (Construction Dust) Regulation. Detailed calculation of mitigated emission rates corresponding to each of the activities are provided in **Annex 1**.

3.3 Modeling Approach

The TSP, RSP and FSP parameters were modelled using the software "Industrial Source Complex Short Term (ISCST)" developed by Trinity Consultants Incorporated. The ISCST model is based on the principle of Gaussian dispersion and is widely accepted by authorities worldwide including the Hong Kong Environmental Protection Department (EPD) and the United States Environmental Protection Agency (USEPA).

Meteorological data derived using MM5 model has been adopted for the assessment.

ASRs locations have been based on the same set of ASRs assessed for this Project. Since the representative ASRs are mainly low-rise (2- to 3-storey high) buildings, the assessment height for the ASRs is taken from the ground level including 1.5m breathing zone up to 7.5m for the upper floor at the ASRs.

Maximum 1-hour average TSP concentrations, as well as 24-hour average, and annual average RSP and FSP concentrations were predicted at the representative ASRs and superimposed with the derived from the PATH output. PATH's concentration output for Year 2015 is adopted as a conservative approach.

4 Assessment Results and Conclusion

Annex 2 presents calculated air pollutants levels due to construction of the planned “Kam Pok Road Site” project taking into account the above assumptions.

Cumulative air pollutants levels (due to concurrent construction of this Project and that of planned “Kam Pok Road Site” were then calculated, which are shown in **Annex 3**.

According to the sensitivity test results as shown in the summary table in Annex 3, the cumulative dust emissions due to concurrent construction of the concerned two project sites would not adversely impact on ASRs as the contribution due to the planned “Kam Pok Road Site” Project is very small and insignificant given to the fact that the concerned planned development is far away from this Project Site.

The calculated cumulative dust levels can also comply with the relevant air quality objectives/ criteria. As such, there will be no adverse cumulative impact during construction stage.

Annex 1
(in Appendix 3-13)

Construction Sequence of Planned “Kam Pok Road Site” Project
and Calculated Emission Factors

Annex 1 Details of Phasing Construction During Site Formation Stage of the planned “Kam Pok Road Site” Project

Based on information obtained from the project proponent of the planned “Kam Pok Road Site” project, the site formation works has been identified as the dust emission sources and was modelled as area sources. Information of construction works of planned “Kam Pok Road Site” was obtained from the Project Proponent of that Project.

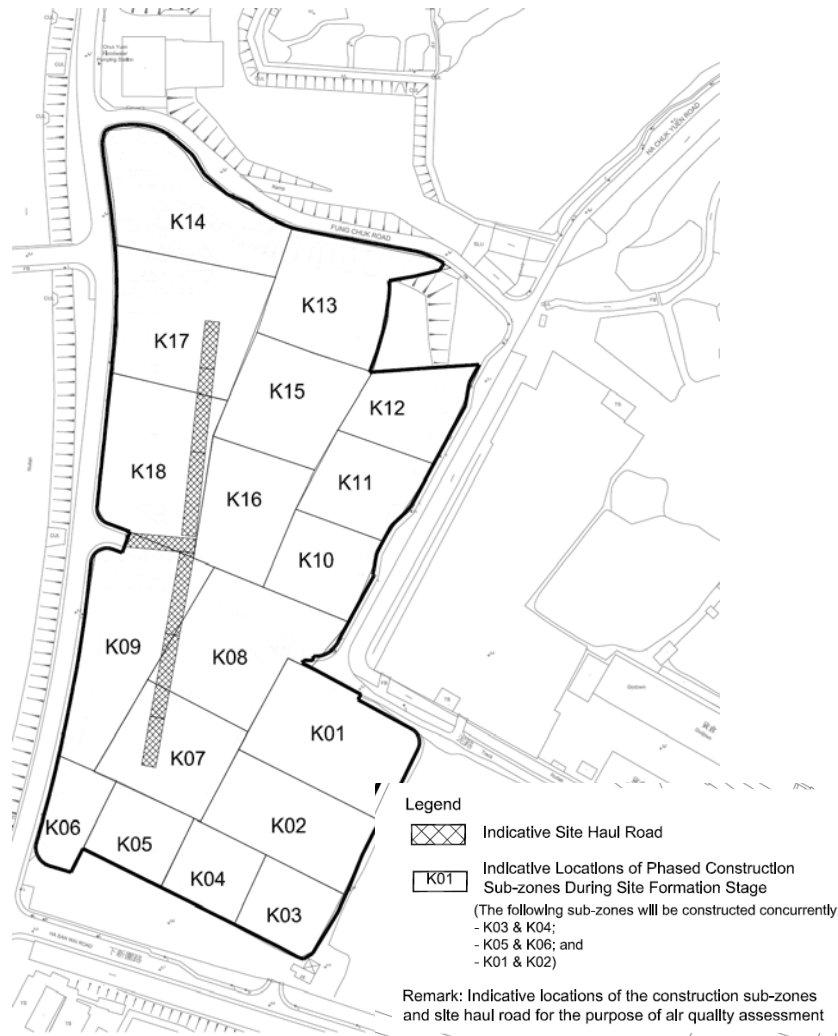
Currently, the planned “Kam Pok Road Site” comprises a paved car park area in the southern portion of Project Site and a concrete paved vacant area and grass land are located in the northern portion. During the construction phase, construction works will be carried out in phases and the paved area at the unaffected area will be maintained so that the soil underneath is not exposed to the atmosphere (i.e. there will be no wind erosion).

According to the information obtained, the planned “Kam Pok Road Site” will be divided into different sub-zones, and there will be only one sub-zone under construction in any one time except that K03 & K04; as well as K05 & K06 will be constructed concurrently (i.e. 16 effective sub-zones). This has been modelled accordingly. As mentioned above, the “Kam Pok Road Site” is currently a paved ground/ green field site, as such, the construction works within the sub-zone will be only emission source as remaining area of the construction site is covered and will not be affected (i.e. no dust emission for the remaining areas). Once construction for a sub-zone is completed, the works area will be compacted, covered by tarpaulin sheet and hydroseeded before construction of another zone. Watering will also be applied on regular basis. Thus, there will be no cumulative construction impacts.

The indicative locations of the phasing plan adopted and haul roads, based on information from the Project proponent of that project, are shown in the following phasing plans for the purpose of air quality assessment.

According to the current construction programme of planned “Kam Pok Road Site” project. The site formation works will require a construction period of about 7.5 months. The site formation will commence in April 2016 until half of November in the same year. Accordingly, it is estimated that construction of each construction sub-zone will take an average of about 14 calendar days to complete, which has also been adopted in the air quality assessment. As the existing water pond is located in sub-zones K01 and K02, to be conservative, it has been assumed that both K01 and K02 will be constructed concurrently (for a duration of 28 days).

Since the site formation will last for about 7.5 months, after that the site will be hard paved and there is no significant air quality impact anticipated at the site. Thus, in assessing the short-term impact (i.e. hourly and daily), it is based on 7.5 months’ construction period only. For long-term impact (i.e. annually), there will be no contribution to RSP and FSP levels due to the Project works for the remaining 4.5 months of the year, thus only background level is taken into account during this period of time.



Indicative Phasing Plan During Site Formation Stage of the Project Site

Annex 1-1A Summary Table of Calculated TSP Emissions Modeling Input Data of "Kam Pok Road Site" Project (Mitigated Scenario)

For both the unmitigated scenario and mitigated scenarios, since there will be no construction activities during restricted hours, and on Sundays and general holidays, the calculated emission rates have been applied to day-time hours during general weekdays only (i.e. 0800 to 1800 hours). While the hours from 1800 to 0800 in the year and on Sunday and general holidays are adopted for impact assessment of wind erosion on the site.

Cut and Cover (day-time only)

| Project Site | Ref. ID | X coordiante | Y coordinate | Elevation,m | Release Height, m | Mitigated * | |
|--------------|---------|--------------|--------------|-------------|-------------------|------------------------------------|-----------------|
| | | | | | | Emission rate, g/m ³ /s | Int. Vert. Dim. |
| HEN RD | K01 | 823442.356 | 837180.936 | 4.8 | 0 | 2.17E-05 | 0 |
| HEN RD | K02 | 823486.063 | 837120.747 | 4.8 | 0 | 2.17E-05 | 0 |
| HEN RD | K03 | 823468.132 | 837094.394 | 4.8 | 0 | 2.17E-05 | 0 |
| HEN RD | K04 | 823440.358 | 837108.061 | 4.8 | 0 | 2.17E-05 | 0 |
| HEN RD | K05 | 823409.614 | 837123.639 | 4.8 | 0 | 2.17E-05 | 0 |
| HEN RD | K06 | 823391.253 | 837167.776 | 4.8 | 0 | 2.17E-05 | 0 |
| HEN RD | K07 | 823446.016 | 837188.662 | 4.8 | 0 | 2.17E-05 | 0 |
| HEN RD | K08 | 823432.052 | 837256.738 | 4.8 | 0 | 2.17E-05 | 0 |
| HEN RD | K09 | 823432.124 | 837256.778 | 4.8 | 0 | 2.17E-05 | 0 |
| HEN RD | K10 | 823488.454 | 837233.747 | 6.5 | 0 | 2.17E-05 | 0 |
| HEN RD | K11 | 823502.807 | 837267.363 | 6.5 | 0 | 2.17E-05 | 0 |
| HEN RD | K12 | 823524.194 | 837299.377 | 6.5 | 0 | 2.17E-05 | 0 |
| HEN RD | K13 | 823498.225 | 837337.744 | 6.5 | 0 | 2.17E-05 | 0 |
| HEN RD | K14 | 823464.458 | 837397.307 | 6.5 | 0 | 2.17E-05 | 0 |
| HEN RD | K15 | 823473.949 | 837297.017 | 6.5 | 0 | 2.17E-05 | 0 |
| HEN RD | K16 | 823452.457 | 837248.458 | 6.5 | 0 | 2.17E-05 | 0 |
| HEN RD | K17 | 823391.456 | 837390.555 | 6.5 | 0 | 2.17E-05 | 0 |
| HEN RD | K18 | 823389.837 | 837337.404 | 6.5 | 0 | 2.17E-05 | 0 |

Wind Erosion

| Project Site | Ref. ID | X coordiante | Y coordinate | Elevation,m | Release Height, m | Unmitigated (night-time only) * | | Unmitigated (day-time only) * | |
|--------------|---------|--------------|--------------|-------------|-------------------|------------------------------------|-----------------|------------------------------------|-----------------|
| | | | | | | Emission rate, g/m ³ /s | Int. Vert. Dim. | Emission rate, g/m ³ /s | Int. Vert. Dim. |
| HEN RD | K01 | 823442.356 | 837180.936 | 4.8 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K02 | 823486.063 | 837120.747 | 4.8 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K03 | 823468.132 | 837094.394 | 4.8 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K04 | 823440.358 | 837108.061 | 4.8 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K05 | 823409.614 | 837123.639 | 4.8 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K06 | 823391.253 | 837167.776 | 4.8 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K07 | 823446.016 | 837188.662 | 4.8 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K08 | 823432.052 | 837256.738 | 4.8 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K09 | 823432.124 | 837256.778 | 4.8 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K10 | 823488.454 | 837233.747 | 6.5 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K11 | 823502.807 | 837267.363 | 6.5 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K12 | 823524.194 | 837299.377 | 6.5 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K13 | 823498.225 | 837337.744 | 6.5 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K14 | 823464.458 | 837397.307 | 6.5 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K15 | 823473.949 | 837297.017 | 6.5 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K16 | 823452.457 | 837248.458 | 6.5 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K17 | 823391.456 | 837390.555 | 6.5 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |
| HEN RD | K18 | 823389.837 | 837337.404 | 6.5 | 0 | 2.70E-06 | 0 | 2.70E-06 | 0 |

Inputs to the ISCST Model:

| Calculated Emission Rate * | | Emission Rate Factor ** |
|----------------------------|----------------|-------------------------|
| General Workdays | Day-time (A) | 2.17E-05 |
| | Night-time (B) | 0.1244 =B/A |

Remark: * Please refer to Annex 1-1B for the calculation of emission factors.

** For general workdays, in order to simulate calculated emission rate due to wind erosion during nighttime period, the "Emission Rate Factor" is applied from 1800 to 0800 hours in the ISCST model.

Travelling on Haul Road (paved) (day-time only)

| Project Site | Road Segment ID | X coordiante | Y coordinate | Ground mPD level, m | X Length, m | Y Length, m | Emission Height, m | Angle, degree | Mitigated * | | | Int. Vert. Dim. |
|--------------|-----------------|--------------|--------------|---------------------|-------------|-------------|--------------------|---------------|---------------------------------|---------------------|------------------------------------|-----------------|
| | | | | | | | | | Calculated emission rate, g/m/s | Total emission, g/s | Emission rate, g/m ² /s | |
| | | | | | | | | | D | =(D*B) | =(D*B)/(B*C) | |
| HEN RD | HR13 | 823394.7 | 837265.1 | 4.8 | 29 | 6 | 0.5 | 6 | 1.34E-04 | 3.89E-03 | 2.23E-05 | 0 |
| HEN RD | HR14 | 823417.9 | 837263.5 | 4.8 | 35 | 6 | 0.5 | 100 | 1.34E-04 | 4.69E-03 | 2.23E-05 | 0 |
| HEN RD | HR15 | 823411.6 | 837229.1 | 4.8 | 35 | 6 | 0.5 | 100 | 1.34E-04 | 4.69E-03 | 2.23E-05 | 0 |
| HEN RD | HR16 | 823405.3 | 837194.6 | 4.8 | 15 | 6 | 0.5 | 100 | 1.34E-04 | 2.01E-03 | 2.23E-05 | 0 |
| HEN RD | HR17 | 823424.4 | 837269.3 | 6.5 | 35 | 6 | 0.5 | -84 | 1.34E-04 | 4.69E-03 | 2.23E-05 | 0 |
| HEN RD | HR18 | 823428.3 | 837304.1 | 6.5 | 35 | 6 | 0.5 | -84 | 1.34E-04 | 4.69E-03 | 2.23E-05 | 0 |
| HEN RD | HR19 | 823432.1 | 837338.9 | 6.5 | 15 | 6 | 0.5 | -83 | 1.34E-04 | 2.01E-03 | 2.23E-05 | 0 |

Remark: * Please refer to Annex 1-1B for the calculation of emission factors.

Annex 1-1B Calculation of TSP Emission Rates of "Kam Pok Road Site" Project (Both Unmitigated and Mitigated Scenarios)

| Type of Work | Type of Emission Source | Parameter | | Remark | |
|---|---|--|---|---|---|
| Wind Erosion on Exposed Ground | (1) Wind Erosion (day-time) | TSP emission factor (Mg/hectare/year) | 0.85 | USEPA AP-42, S11.9, Table 11.9-4, 7/98 ed. | |
| | | Emission rate, g/m²/s (unmitigated) | 2.70E-06 | ={(0.85*1000000)/10000m ² /(365*24*60*60)} | |
| | (1) Wind Erosion (night-time) | TSP emission factor (Mg/hectare/year) | 0.85 | USEPA AP-42, S11.9, Table 11.9-4, 7/98 ed. | |
| | | Emission rate, g/m²/s (unmitigated) | 2.70E-06 | ={(0.85*1000000)/10000m ² /(365*24*60*60)} | |
| Cut and Cover Activites | (2) Bulldozing & Surface Compacting (day-time only) | Eqn.: $E = 2.6 (s)^{1.2} / (M)^{1.3}$ | | USEPA AP-42, S11.9, Table 11.9-2, 7/98 ed. * | |
| | | Material moisture content (%), M | 2.2 | To represent the worst case scenario, the lowest moisture content within the range specified for overburden in the USEPA AP-42, S11.9, Table 11.9-3, 7/98 ed., is adopted | |
| | | Material silt content (%), s | 15.1 | To represent the worst case scenario, the highest silt content within the range specified for overburden in the USEPA AP-42, S11.9, Table 11.9-3, 7/98 ed., is adopted | |
| | | Calculated Emission Factor (kg/hr), E | 2.42E+01 | | |
| | | Site Area (m ²), A | 37650 | Area of the whole project site | |
| | | Calculated emission rate (unmitigated) (g/m²/s) | 1.79E-04 | = (E*1000)/A/(60*60) | |
| | | % of dust supression # | 90.0% | for watering eight times during day-time # | |
| | | Calculated emission rate, g/m²/s (mitigated) | 1.79E-05 | Due to % of dust supression. | |
| | | (3) Removal/ unloading soil materials by excavators (day-time only) | Emission Factor of excavator unloading topsoil (kg/Mg), E1 | 0.02 | USEPA AP-42, S11.9, Table 11.9-4, 7/98 ed. (scraper unloading topsoil is adopted). * |
| | | | Emission Factor of Topsoil removal by excavator (kg/Mg), E2 | 0.029 | USEPA AP-42, S11.9, Table 11.9-4, 7/98 ed. (Topsoil removal by scraper is adopted). * |
| | Total Emission by excavator (kg/Mg), E= E1+E2 | | 4.90E-02 | | |
| | Total quantity of materials involved (m ³), Q | | 78000 | Estimated excavated materials and imported fill materials | |
| | No. of months for site formation (Phase B to D), m | | 7.5 | Duration of site formation works | |
| | No. of working days per month, d | | 25 | Assume 25 working days per month | |
| No. of working hours per day, h | 10 | | Assumed working hours = 0800 hr to 1800 hr | | |
| Average hourly output (m ³ /hr), O1 | 41.60 | | = Q/(m*d*h) | | |
| Average hourly output (Mg/hr), O2 | 104.00 | = O1 x 2.5Mg/m ³ . Assuming the truck capacity of 6m3 and 15 tons (i.e. soil density of 2.5 Mg/m3). | | | |
| Site Area (m ²), A | 37650 | Area of the whole project site | | | |
| Calculated emission rate (unmitigated) (g/m²/s) | 3.76E-05 | = (O2 x (E x 1000)/ A)/(60*60) | | | |
| % of dust supression # | 90.0% | for watering eight times during day-time # | | | |
| Calculated emission rate (mitigated) (g/m²/s) | 3.76E-06 | | | | |

| Type of Work | Type of Emission Source | Parameter | | Remark | |
|---|---|---|--|---|---|
| | (4) Earth Handling/ Loading, Unloading, and stockpiling (day-time only) | Eqn.: $E = k \times (0.0016) \times ((U/2.2)^{1.3} / (M/2)^{1.4})$ | | USEPA AP-42, S13.2.4, 11/06 ed. * | |
| | | Particle size multiplier, k | 0.74 | USEPA AP-42, S13.2.4, 11/06 ed. | |
| | | Mean wind speed (m/s), U | 1.85 | Based on year 2010 average wind speed recorded at Wetland Park Station of Hong Kong Observatory. | |
| | | Material moisture content (%), M | 2.2 | Pls. refer to Emission Source no. (2) above | |
| | | Calculated Emission Factor (kg/Mg), E | 0.00083 | $E = k \times (0.0016) \times ((U/2.2)^{1.3} / (M/2)^{1.4})$ | |
| | | Total quantity of materials involved (m ³), Q | 78000 | Estimated excavated materials and imported fill materials | |
| | | No. of months for site formation, m | 7.5 | Duration of site formation works | |
| | | No. of working days per month, d | 25 | Assume 25 working days per month | |
| | | No. of working hours per day, h | 10 | Assumed working hours = 0800 hr to 1800 hr | |
| | | Average hourly output (m ³ /hr), O1 | 41.60 | = Q/(m*d*h) | |
| | | Average hourly output (Mg/hr), O2 | 104.00 | = O1 x 2.5Mg/m ³ . Assuming the truck capacity of 6m ³ and 15 tons (i.e. soil density of 2.5 Mg/m ³). | |
| | | Site Area (m ²), A | 37650 | Area of the whole project site | |
| | | Calculated emission rate (unmitigated) (g/m ² /s) | 6.37E-07 | = (O2 x (E x 1000)/ A)/(60*60) | |
| | | % of dust suppression # | 90.0% | for watering eight times during day-time # | |
| | Calculated emission rate (mitigated) (g/m ² /s) | 6.37E-08 | | | |
| | Total Emission for "Cut and Cover" (= (2) + (3) + (4)) | Unmitigated Total Emission rate, g/m ² /s, (day-time only) | 2.17E-04 | Calculated total unmitigated emission factor for "Cut and Cover". | |
| | | Mitigated Total Emission rate, g/m ² /s (day-time only) | 2.17E-05 | Calculated total mitigated emission factor for "Cut and Cover" ##. | |
| | Vehicle movement on Haul Road | (5) Paved Haul Road (day-time only) | Eqn.: $E = k \times (sL)^{0.91} \times (W)^{1.02}$ | | USEPA AP-42, S13.2.1, 11/06 ed. |
| | | | Particle size multiplier (g/VKT), k | 3.23 | USEPA AP-42, S13.2.1, 11/06 ed., Table 13.2.1-1 for PM-30. |
| | | | Road surface silt loading (g/m ²), sL | 14 | To represent the worst case scenario, the highest silt loading within the range of typical values specified for quarry operation in the USEPA AP-42, S13.2.1, 11/11 ed., Table 13.2.1-3, is adopted. ** |
| Mean vehicle weight (tons), W | | | 16 | The average weight of the empty truck and full load truck. | |
| Calculated Emission Factor (g/VKT), E1 | | | 603.09 | $E = k \times (sL)^{0.91} \times (W)^{1.02}$ | |
| Calculated emission factor (g/v-m), E2 | | | 0.603 | = E1/1000 | |
| Average no. of trucks (veh./hr), T | | | 8 | Estimated maximum no. of trucks per hour | |
| Calculated emission rate (unmitigated), g/m/s | | | 1.34E-03 | = E2*(T/60*60) | |
| % of dust suppression # | | | 90.0% | for watering eight times during day-time # | |
| Calculated emission rate (mitigated), g/m/s | | | 1.34E-04 | | |

Remark:

It is expected that dust suppression efficiency similar to this Project can be achieved. 90% dust suppression efficiency is assumed.

Due to the phased construction area, only limited space and construction plants will be available for construction in any one time. Thus, the construction activities under the "Cut and Cover" category that would contribute to dust emissions will unlikely to operate at the same time. In fact, only one of the above activities will operate in any one time. However, to be conservative, air quality impacts due to simultaneous construction of these activities has been taken into account in the assessment.

* The equation recommended for concerned particular construction activity as per Section 13.2.3 of USEPA AP-42 regarding heavy construction operation.

** The concerned construction activity of this Project during site formation stage will involve earth movement activities and transportation of excavated/ fill materials, etc. The nature of these activities is similar to that of quarry operation. Thus, the typical silt loading within the range of typical values from quarry site, as stipulated in USEPA AP-42, Table 13.2.1-3, S13.2.1, 11/06 ed., is adopted in the above equation. The reported highest silt loading value has been used in this exercise for worst case scenario. It is noted that similar assumption has also been adopted for paved construction haul road in the approved EIA report, Appendix F of the "EIA-032/1999 - East Rail Extension Hung Hom to Tsim Sha Tsui - Environmental Impact Assessment".

Annex 1-2A Summary Table of Calculated RSP Emissions Modeling Input Data of "Kam Pok Road Site" Project (Mitigated Scenario)

For both the unmitigated scenario and mitigated scenarios, since there will be no construction activities during restricted hours, and on Sundays and general holidays, the calculated emission rates have been applied to day-time hours during general weekdays only (i.e. 0800 to 1800 hours). While the hours from 1800 to 0800 in the year and on Sunday and general holidays are adopted for impact assessment of wind erosion on the site.

Cut and Cover (day-time only)

| Project Site | Ref. ID | X coordiante | Y coordinate | Elevation,m | Release Height, m | Mitigated * | |
|--------------|---------|--------------|--------------|-------------|-------------------|------------------------------------|-----------------|
| | | | | | | Emission rate, g/m ² /s | Int. Vert. Dim. |
| HEN RD | K01 | 823442.356 | 837180.936 | 4.8 | 0 | 6.79E-06 | 0 |
| HEN RD | K02 | 823486.063 | 837120.747 | 4.8 | 0 | 6.79E-06 | 0 |
| HEN RD | K03 | 823468.132 | 837094.394 | 4.8 | 0 | 6.79E-06 | 0 |
| HEN RD | K04 | 823440.358 | 837108.061 | 4.8 | 0 | 6.79E-06 | 0 |
| HEN RD | K05 | 823409.614 | 837123.639 | 4.8 | 0 | 6.79E-06 | 0 |
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| HEN RD | K09 | 823432.124 | 837256.778 | 4.8 | 0 | 6.79E-06 | 0 |
| HEN RD | K10 | 823488.454 | 837233.747 | 6.5 | 0 | 6.79E-06 | 0 |
| HEN RD | K11 | 823502.807 | 837267.363 | 6.5 | 0 | 6.79E-06 | 0 |
| HEN RD | K12 | 823524.194 | 837299.377 | 6.5 | 0 | 6.79E-06 | 0 |
| HEN RD | K13 | 823498.225 | 837337.744 | 6.5 | 0 | 6.79E-06 | 0 |
| HEN RD | K14 | 823464.458 | 837397.307 | 6.5 | 0 | 6.79E-06 | 0 |
| HEN RD | K15 | 823473.949 | 837297.017 | 6.5 | 0 | 6.79E-06 | 0 |
| HEN RD | K16 | 823452.457 | 837248.458 | 6.5 | 0 | 6.79E-06 | 0 |
| HEN RD | K17 | 823391.456 | 837390.555 | 6.5 | 0 | 6.79E-06 | 0 |
| HEN RD | K18 | 823389.837 | 837337.404 | 6.5 | 0 | 6.79E-06 | 0 |

Wind Erosion

| Project Site | Ref. ID | X coordiante | Y coordinate | Elevation,m | Release Height, m | Unmitigated (night-time only) * | | Unmitigated (day-time only) * | |
|--------------|---------|--------------|--------------|-------------|-------------------|------------------------------------|-----------------|------------------------------------|--|
| | | | | | | Emission rate, g/m ² /s | Int. Vert. Dim. | Emission rate, g/m ² /s | |
| HEN RD | K01 | 823442.356 | 837180.936 | 4.8 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K02 | 823486.063 | 837120.747 | 4.8 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K03 | 823468.132 | 837094.394 | 4.8 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K04 | 823440.358 | 837108.061 | 4.8 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K05 | 823409.614 | 837123.639 | 4.8 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K06 | 823391.253 | 837167.776 | 4.8 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K07 | 823446.016 | 837188.662 | 4.8 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K08 | 823432.052 | 837256.738 | 4.8 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K09 | 823432.124 | 837256.778 | 4.8 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K10 | 823488.454 | 837233.747 | 6.5 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K11 | 823502.807 | 837267.363 | 6.5 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K12 | 823524.194 | 837299.377 | 6.5 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K13 | 823498.225 | 837337.744 | 6.5 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K14 | 823464.458 | 837397.307 | 6.5 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K15 | 823473.949 | 837297.017 | 6.5 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K16 | 823452.457 | 837248.458 | 6.5 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K17 | 823391.456 | 837390.555 | 6.5 | 0 | 1.37E-06 | 0 | 1.37E-06 | |
| HEN RD | K18 | 823389.837 | 837337.404 | 6.5 | 0 | 1.37E-06 | 0 | 1.37E-06 | |

Inputs to the ISCST Model:

| General Workdays | Calculated Emission Rate * | | Emission Rate Factor ** |
|------------------|----------------------------|----------------|-------------------------|
| | Day-time (A) | Night-time (B) | |
| | 6.79E-06 | 1.37E-06 | 0.2018 =B/A |

Remark: * Please refer to Annex 1-2B for the calculation of emission factors.

** For general workdays, in order to simulate calculated emission rate due to wind erosion during nighttime period, the "Emission Rate Factor" is applied from 1800 to 0800 hours in the ISCST model.

Travelling on Haul Road (paved) (day-time only)

| Project Site | Road Segment ID | X coordiante | Y coordinate | Ground mPD level, m | X Length, m | Y Length, m | Emission Height, m | Angle, degree | Mitigated * | | | Int. Vert. Dim. |
|--------------|-----------------|--------------|--------------|---------------------|-------------|-------------|--------------------|---------------|---------------------------------|---------------------|------------------------------------|-----------------|
| | | | | | | | | | Calculated emission rate, g/m/s | Total emission, g/s | Emission rate, g/m ² /s | |
| | | | | | | | | | D | = (D*B) | =(D*B)/(B*C) | |
| HEN RD | HR13 | 823394.7 | 837265.1 | 4.8 | 29 | 6 | 0.5 | 6 | 2.57E-05 | 7.46E-04 | 4.29E-06 | 0 |
| HEN RD | HR14 | 823417.9 | 837263.5 | 4.8 | 35 | 6 | 0.5 | 100 | 2.57E-05 | 9.00E-04 | 4.29E-06 | 0 |
| HEN RD | HR15 | 823411.6 | 837229.1 | 4.8 | 35 | 6 | 0.5 | 100 | 2.57E-05 | 9.00E-04 | 4.29E-06 | 0 |
| HEN RD | HR16 | 823405.3 | 837194.6 | 4.8 | 15 | 6 | 0.5 | 100 | 2.57E-05 | 3.86E-04 | 4.29E-06 | 0 |
| HEN RD | HR17 | 823424.4 | 837269.3 | 6.5 | 35 | 6 | 0.5 | -84 | 2.57E-05 | 9.00E-04 | 4.29E-06 | 0 |
| HEN RD | HR18 | 823428.3 | 837304.1 | 6.5 | 35 | 6 | 0.5 | -84 | 2.57E-05 | 9.00E-04 | 4.29E-06 | 0 |
| HEN RD | HR19 | 823432.1 | 837338.9 | 6.5 | 15 | 6 | 0.5 | -83 | 2.57E-05 | 3.86E-04 | 4.29E-06 | 0 |

Remark: * Please refer to Annex 1-2B for the calculation of emission factors.

Annex 1-2B Calculation of RSP Emission Rates of the Project Site of "Kam Pok Road Site" Project (Both Unmitigated and Mitigated Scenarios)

| Type of Work | Type of Emission Source | Parameter | | Remark |
|--|---|--|--|--|
| Wind Erosion on Exposed Ground | (1) Wind Erosion (day-time) | TSP emission factor (Mg/hectare/year) | 0.85 | USEPA AP-42, S11.9, Table 11.9-4, 7/98 ed. |
| | | Calculated RSP emission factor (Mg/hectare/year) | 0.43 | Converted from the above TSP emission factor based on a ratio of 0.51 for RSP/TSP. ® |
| | | RSP Emission rate, g/m ² /s (unmitigated) | 1.37E-06 | ={(0.43*1000000)/10000m ² /(365*24*60)} |
| | (1) Wind Erosion (night-time) | TSP emission factor (Mg/hectare/year) | 0.85 | USEPA AP-42, S11.9, Table 11.9-4, 7/98 ed. |
| | | Calculated RSP emission factor (Mg/hectare/year) | 0.43 | Converted from the above TSP emission factor based on a ratio of 0.51 for RSP/TSP. ® |
| | | RSP Emission rate, g/m ² /s (unmitigated) | 1.37E-06 | ={(0.43*1000000)/10000m ² /(365*24*60)} |
| Cut and Cover Activites | (2) Bulldozing & Surface Compacting (day-time only) | Eqn.: $E = (0.45 (s)^{1.5} (M)^{1.4}) \times 0.75$ | | USEPA AP-42, S11.9, Table 11.9-2, 7/98 ed. (Based on the eqn. of particle size <= 15 µm. According to Table 11.9-2, a scaling factor of 0.75 has been applied to the above eqn. in order to represent RSP emission factor) * |
| | | Material moisture content (%), M | 2.2 | To represent the worst case scenario, the lowest moisture content within the range specified for overburden in the USEPA AP-42, S11.9, Table 11.9-3, 7/98 ed., is adopted |
| | | Material silt content (%), s | 15.1 | To represent the worst case scenario, the highest silt content within the range specified for overburden in the USEPA AP-42, S11.9, Table 11.9-3, 7/98 ed., is adopted |
| | | Calculated RSP Emission Factor (kg/hr), E | 6.57E+00 | |
| | | Site Area (m ²), A | 37650 | Area of the whole project site |
| | | Calculated RSP emission rate (unmitigated) (g/m ² /s) | 4.84E-05 | = (E*1000)/A/(60*60) |
| | | % of dust suppresion # | 90.0% | for watering eight times during day-time # |
| | | Calculated RSP emission rate, g/m ² /s (mitigated) | 4.84E-06 | Due to % of dust suppresion. |
| | (3) Removal/ unloading soil materials by excavators (day-time only) | TSP Emission Factor of excavator unloading topsoil (kg/Mg), E1 | 0.02 | USEPA AP-42, S11.9, Table 11.9-4, 7/98 ed. (scraper unloading topsoil is adopted). * |
| | | TSP Emission Factor of Topsoil removal by excavator (kg/Mg), E2 | 0.029 | USEPA AP-42, S11.9, Table 11.9-4, 7/98 ed. (Topsoil removal by scraper is adopted). * |
| | | Total TSP Emission by excavator (kg/Mg), E1+E2 | 4.90E-02 | |
| | | Calculated RSP Emission by excavator (kg/Mg), E = (E1+E2) x0.51) | 2.50E-02 | Converted from the above TSP emission factor based on a ratio of 0.51 for RSP/TSP. ® |
| | | Total quantity of materials involved (m ³), Q | 78000 | Estimated excavated materials and imported fill materials |
| | | No. of months for site formation (Phase B to D), m | 7.5 | Duration of site formation works |
| No. of working days per month, d | | 25 | Assume 25 working days per month | |
| No. of working hours per day, h | | 10 | Assumed working hours = 0800 hr to 1800 hr | |
| Average hourly output (m ³ /hr), O1 | | 41.60 | = Q/(m*d*h) | |
| Average hourly output (Mg/hr), O2 | | 104.00 | = O1 x 2.5Mg/m ³ . Assuming the truck capacity of 6m3 and 15 tons (i.e. soil density of 2.5 Mg/m3). | |
| Site Area (m ²), A | | 37650 | Area of the whole project site | |
| Calculated emission rate (unmitigated) (g/m ² /s) | | 1.92E-05 | = (O2 x (E x 1000) / A) / (60*60) | |
| % of dust suppression # | | 90.0% | for watering eight times during day-time # | |
| Calculated emission rate (mitigated) (g/m ² /s) | | 1.92E-06 | | |

| Type of Work | Type of Emission Source | Parameter | | Remark | |
|---|---|--|---|---|--|
| | (4) Earth Handling/ Loading, Unloading, and stockpiling (day-time only) | Eqn.: $E = k \times (0.0016) \times ((U/2.2)^{1.3} / (M/2)^{1.4})$ | | USEPA AP-42, S13.2.4, 11/06 ed. * | |
| | | Particle size multiplier, k | 0.35 | particle size multiplier for particle size of 10 µm | |
| | | Mean wind speed (m/s), U | 1.85 | Based on year 2010 average wind speed recorded at Wetland Park Station of Hong Kong Observatory. | |
| | | Material moisture content (%), M | 2.2 | Pls. refer to Emission Source no. (2) above | |
| | | Calculated Emission Factor (kg/Mg), E | 0.00039 | $E = k \times (0.0016) \times ((U/2.2)^{1.3} / (M/2)^{1.4})$ | |
| | | Total quantity of materials involved (m ³), Q | 78000 | Estimated excavated materials and imported fill materials | |
| | | No. of months for site formation, m | 7.5 | Duration of site formation works | |
| | | No. of working days per month, d | 25 | Assume 25 working days per month | |
| | | No. of working hours per day, h | 10 | Assumed working hours = 0800 hr to 1800 hr | |
| | | Average hourly output (m ³ /hr), O1 | 41.60 | = Q/(m*d*h) | |
| | | Average hourly output (Mg/hr), O2 | 104.00 | = O1 x 2.5Mg/m ³ . Assuming the truck capacity of 6m3 and 15 tons (i.e. soil density of 2.5 Mg/m3). | |
| | | Site Area (m ²), A | 37650 | Area of the whole project site | |
| | | Calculated emission rate (unmitigated) (g/m ² /s) | 2.99E-07 | = (O2 x (E x 1000)/ A)/(60*60) | |
| | | % of dust suppression # | 90.0% | for watering eight times during day-time # | |
| | | Calculated emission rate (mitigated) (g/m ² /s) | 2.99E-08 | | |
| | | Total Emission for "Cut and Cover" (= (2) + (3) + (4)) | Unmitigated Total Emission rate, g/m ² /s, (day-time only) | 6.79E-05 | Calculated total unmitigated emission factor for "Cut and Cover". |
| | | | Mitigated Total Emission rate, g/m ² /s (day-time only) | 6.79E-06 | Calculated total mitigated emission factor for "Cut and Cover" ##. |
| | | Vehicle movement on Haul Road | (5) Paved Haul Road (day-time only) | Eqn.: $E = k \times (sL)^{0.91} \times (W)^{1.02}$ | |
| Particle size multiplier (g/VKT), k | 0.62 | | | USEPA AP-42, S13.2.1, 11/06 ed., Table 13.2.1-1 for PM-10. | |
| Road surface silt loading (g/m ²), sL | 14 | | | To represent the worst case scenario, the highest silt loading within the range of typical values specified for quarry operation in the USEPA AP-42, S13.2.1, 11/11 ed., Table 13.2.1-3, is adopted. ** | |
| Mean vehicle weight (tons), W | 16 | | | The average weight of the empty truck and full load truck. | |
| Calculated Emission Factor (g/VKT), E1 | 115.76 | | | $E = k \times (sL)^{0.91} \times (W)^{1.02}$ | |
| Calculated emission factor (g/v-m), E2 | 0.116 | | | = E1/1000 | |
| Average no. of trucks (veh./hr), T | 8 | | | Estimated maximum no. of trucks per hour | |
| Calculated emission rate (unmitigated), g/m/s | 2.57E-04 | | | = E2*(T/60*60) | |
| % of dust suppression # | 90.0% | | | for watering eight times during day-time # | |
| Calculated emission rate (mitigated), g/m/s | 2.57E-05 | | | | |

Remark:

It is expected that dust suppression efficiency similar to this Project can be achieved. 90% dust suppression efficiency is assumed.

Due to the phased construction area, only limited space and construction plants will be available for construction in any one time. Thus, the construction activities under the "Cut and Cover" category that would contribute to dust emissions will unlikely to operate at the same time. In fact, only one of the above activities will operate in any one time. However, to be conservative, air quality impacts due to simultaneous construction of these activities has been taken into account in the assessment.

* The equation recommended for concerned particular construction activity as per Section 13.2.3 of USEPA AP-42 regarding heavy construction operation.

** The concerned construction activity of this Project during site formation stage will involve earth movement activities and transportation of excavated/ fill materials, etc. The nature of these activities is similar to that of quarry operation. Thus, the typical silt loading within the range of typical values from quarry site, as stipulated in USEPA AP-42, Table 13.2.1-3, S13.2.1, 11/06 ed., is adopted in the above equation. The reported highest silt loading value has been used in this exercise for worst case scenario. It is noted that similar assumption has also been adopted for paved construction haul road in the approved EIA report, Appendix F of the "EIA-032/1999 - East Rail Extension Hung Hom to Tsim Sha Tsui - Environmental Impact Assessment".

@ Ratio for RSP/ TSP (i.e. 0.51), same as this Project, is assumed.

Annex 2
(in Appendix 3-13)

Calculated TSP, RSP and FSP Concentrations Due to Planned
“Kam Pok Road Site” project

Annex 2 Calculated Pollutants Levels for Planned “Kam Pok Road Site” project

The predicted mitigated hourly average TSP concentrations, as well as daily average and annual average RSP and FSP concentrations due to construction of the planned “Kam Pok Road Site” project are presented in Tables 1 to 5 below.

Table 1 Predicted Maximum Hourly TSP Concentrations Due to “Kam Pok Road Site” Project (Mitigated Scenario)

| ASR No. | Description | Ground Level, mPD | High Above Ground, m | TSP Concentration ($\mu\text{g}/\text{m}^3$) | |
|---------|-------------------------------------|-------------------|----------------------|--|----------------------|
| | | | | With Background ** | Without Background * |
| A01 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 35 / 31 / 25 |
| A01A | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 32 / 30 / 27 |
| A02 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 28 / 26 / 24 |
| A02A | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 35 / 31 / 24 |
| A03 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 61 / 45 / 32 |
| A04 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 53 / 42 / 29 |
| A05 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 17 / 16 / 15 |
| A05A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 24 / 23 / 22 |
| A05B | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 15 / 14 / 14 |
| A06 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 21 / 19 / 18 |
| A06A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 15 / 15 / 14 |
| A07 | Yau Mei San Tsuen village house | 3.1 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 8 / 8 / 7 |
| A08 | Chuk Yuen Tsuen village house | 2.3 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 16 / 15 / 14 |
| A09 | Chuk Yuen Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 19 / 15 / 13 |
| A10 | Bethel High School | 4.4 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 54 / 43 / 38 |
| A10A | Bethel High School | 4.4 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 46 / 40 / 33 |
| A11 | Helene Terrace | 4.5 | 1.5 / 4.5 / 7.5 | 171 / 164 / 164 | 88 / 72 / 48 |
| A12 | Villa Camilla | 6.5 | 1.5 / 4.5 / 7.5 | 166 / 166 / 165 | 56 / 52 / 45 |
| A13 | Fairview Park | 4.6 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 38 / 36 / 31 |
| A14 | Wong Chan Sook Ying Memorial School | 4.4 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 45 / 42 / 37 |
| A15 | Man Yuen Tsuen village house | 4.1 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 36 / 34 / 30 |
| A16 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 10 / 10 / 10 |
| A16A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 11 / 11 / 10 |
| A17 | Palm Springs | 5.7 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 6 / 6 / 6 |
| A18 | Yau Mei San Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 10 / 10 / 10 |

Annex 2 in Appendix 3-13

| ASR No. | Description | Ground Level, mPD | High Above Ground, m | TSP Concentration ($\mu\text{g}/\text{m}^3$) | |
|-------------------|--|-------------------|----------------------|--|----------------------|
| | | | | With Background ** | Without Background * |
| A19 | Chuk Yuen Tsuen village house | 3.3 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 26 / 24 / 21 |
| A20 | Hang Fook Garden | 4.2 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 33 / 31 / 26 |
| A21 | Ha San Wai village house | 4.2 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 36 / 33 / 28 |
| A22 | Ha San Wai village house | 3.5 | 1.5 / 4.5 / 7.5 | 165 / 164 / 164 | 49 / 47 / 43 |
| A23 | Yau Mei San Tsuen village house | 3.6 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 9 / 9 / 9 |
| A24 | Christian Ministry Institute | 3.5 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 9 / 9 / 8 |
| A25 | Royal Palms | 4.9 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 10 / 9 / 9 |
| A26 | Hong Chi Morninglight School Yuen Long | 4.4 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 9 / 9 / 9 |
| A27 | Existing building | 4.5 | 1.5 / 4.5 / 7.5 | 316 / 252 / 182 | 226 / 163 / 92 |
| A28 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 10 / 10 / 10 |
| A29 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 11 / 11 / 10 |
| A30 | Fairview Park | 4.5 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 44 / 42 / 38 |
| A31 | Fairview Park | 3.9 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 14 / 13 / 12 |
| A32 | A Restaurant near Helene Terrace | 4.5 | 1.5 / 4.5 / 7.5 | 166 / 164 / 164 | 89 / 82 / 70 |
| A33 | Fairview Park | 3.9 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 19 / 18 / 16 |
| A34 | Palm Springs | 5.2 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 13 / 13 / 12 |
| A35 | Palm Springs | 5 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 6 / 6 / 6 |
| A36 | Yau Mei San Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 11 / 11 / 10 |
| A1Pa | Planned RD Site | 3 | 1.5 / 4.5 / 7.5 | 166 / 166 / 165 | 19 / 18 / 18 |
| A2Pa | Planned RD Site | 3 | 1.5 / 4.5 / 7.5 | 176 / 167 / 165 | 109 / 94 / 71 |
| A3Pa | Planned REC Site | 3 | 1.5 / 4.5 / 7.5 | 164 / 164 / 164 | 17 / 16 / 14 |
| A4Pa | Planned REC Site | 3 | 1.5 / 4.5 / 7.5 | 213 / 164 / 164 | 179 / 110 / 43 |
| A5Pa | Planned Yau Mei Site | 2 | 1.5 / 4.5 / 7.5 | N/A | N/A |
| V01 | Planned NT exempted houses | 3 | 1.5 / 4.5 / 7.5 | 168 / 164 / 164 | 152 / 67 / 51 |
| V02 | Planned "V" zone | 2.4 | 1.5 / 4.5 / 7.5 | 167 / 167 / 166 | 15 / 14 / 14 |
| V03 | Planned "V" zone | 3 | 1.5 / 4.5 / 7.5 | 227 / 175 / 164 | 164 / 96 / 65 |
| V04 | Planned "RD" zone | 4.8 | 1.5 / 4.5 / 7.5 | 224 / 164 / 164 | 143 / 77 / 65 |
| Max. Conc. | - | | - | 316 | 226 |
| Criteria | - | | - | 500 | 500 |

Remark: * Concentration due to contribution of Project Site

** The above results have included the background level extracted from the PATH Output (year 2015). The hour-by-hour background contribution is estimated using output of PATH model, and added hour-by-hour to the Project contribution.

N/A - Not applicable in this cumulative impact assessment.

Table 2 Predicted Daily Average RSP Concentrations Due to “Kam Pok Road Site” Project (Mitigated Scenario)

| ASR No. | Description | Ground Level, mPD | High Above Ground, m | RSP Concentration ($\mu\text{g}/\text{m}^3$) | |
|---------|-------------------------------------|-------------------|----------------------|--|----------------------|
| | | | | With Background ** | Without Background * |
| A01 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 1 |
| A01A | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 2 / 2 / 1 |
| A02 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 1 |
| A02A | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 1 |
| A03 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 2 / 1 / 1 |
| A04 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 2 / 2 / 1 |
| A05 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A05A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 0 |
| A05B | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A06 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A06A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A07 | Yau Mei San Tsuen village house | 3.1 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A08 | Chuk Yuen Tsuen village house | 2.3 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 1 |
| A09 | Chuk Yuen Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 1 |
| A10 | Bethel High School | 4.4 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 2 / 2 / 1 |
| A10A | Bethel High School | 4.4 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 1 |
| A11 | Helene Terrace | 4.5 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 9 / 7 / 4 |
| A12 | Villa Camilla | 6.5 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 2 / 2 / 1 |
| A13 | Fairview Park | 4.6 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 2 / 1 / 1 |
| A14 | Wong Chan Sook Ying Memorial School | 4.4 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 1 |
| A15 | Man Yuen Tsuen village house | 4.1 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 3 / 2 / 2 |
| A16 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A16A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 0 |
| A17 | Palm Springs | 5.7 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A18 | Yau Mei San Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A19 | Chuk Yuen Tsuen village house | 3.3 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 1 |
| A20 | Hang Fook Garden | 4.2 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 1 |
| A21 | Ha San Wai village house | 4.2 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 1 |
| A22 | Ha San Wai village house | 3.5 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 1 |
| A23 | Yau Mei San Tsuen village house | 3.6 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |

Annex 2 in Appendix 3-13

| ASR No. | Description | Ground Level, mPD | High Above Ground, m | RSP Concentration ($\mu\text{g}/\text{m}^3$) | |
|----------------------------|--|-------------------|----------------------|--|----------------------|
| | | | | With Background ** | Without Background * |
| A24 | Christian Ministry Institute | 3.5 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A25 | Royal Palms | 4.9 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A26 | Hong Chi Morninglight School Yuen Long | 4.4 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A27 | Existing building | 4.5 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 11 / 5 / 3 |
| A28 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A29 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A30 | Fairview Park | 4.5 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 1 |
| A31 | Fairview Park | 3.9 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A32 | A Restaurant near Helene Terrace | 4.5 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 6 / 5 / 3 |
| A33 | Fairview Park | 3.9 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A34 | Palm Springs | 5.2 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A35 | Palm Springs | 5 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A36 | Yau Mei San Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A1Pa | Planned RD Site | 3 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| A2Pa | Planned RD Site | 3 | 1.5 / 4.5 / 7.5 | 124 / 123 / 123 | 4 / 3 / 2 |
| A3Pa | Planned REC Site | 3 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 1 / 1 / 0 |
| A4Pa | Planned REC Site | 3 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 5 / 3 / 2 |
| A5Pa | Planned Yau Mei Site | 2 | 1.5 / 4.5 / 7.5 | N/A | N/A |
| V01 | Planned NT exempted houses | 3 | 1.5 / 4.5 / 7.5 | 124 / 123 / 123 | 4 / 2 / 1 |
| V02 | Planned "V" zone | 2.4 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 0 / 0 / 0 |
| V03 | Planned "V" zone | 3 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 6 / 3 / 2 |
| V04 | Planned "RD" zone | 4.8 | 1.5 / 4.5 / 7.5 | 122 / 122 / 122 | 10 / 5 / 2 |
| Max. Conc. | | | - | 124 | 11 |
| No. of exceedance @ | | | | 1 | - |
| Criteria | | - | | 100 (no. of exceedance allowed <= 9) | |

Remark: The above results are based on the 1st highest daily average concentrations.

* Concentration due to contribution of Project Site

** The above results have included the background level extracted from the PATH Output (year 2015). The hour-by-hour background contribution is estimated using output of PATH model, and added hour-by-hour to the Project contribution.

N/A - Not applicable in this cumulative impact assessment.

@ Total no. of exceedance based on the calculated cumulative concentration.

Table 3 Predicted Daily Average FSP Concentrations Due to “Kam Pok Road Site” Project (Mitigated Scenario)

| ASR No. | Description | Ground Level, mPD | High Above Ground, m | FSP Concentration ($\mu\text{g}/\text{m}^3$) | |
|---------|-------------------------------------|-------------------|----------------------|--|----------------------|
| | | | | With Background ** | Without Background * |
| A01 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A01A | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 1 / 0 / 0 |
| A02 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A02A | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A03 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 1 / 0 / 0 |
| A04 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 1 / 1 / 0 |
| A05 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A05A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A05B | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A06 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A06A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A07 | Yau Mei San Tsuen village house | 3.1 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A08 | Chuk Yuen Tsuen village house | 2.3 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A09 | Chuk Yuen Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A10 | Bethel High School | 4.4 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 1 / 1 / 0 |
| A10A | Bethel High School | 4.4 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A11 | Helene Terrace | 4.5 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 3 / 2 / 1 |
| A12 | Villa Camilla | 6.5 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 1 / 0 / 0 |
| A13 | Fairview Park | 4.6 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A14 | Wong Chan Sook Ying Memorial School | 4.4 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A15 | Man Yuen Tsuen village house | 4.1 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 1 / 1 / 1 |
| A16 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A16A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A17 | Palm Springs | 5.7 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A18 | Yau Mei San Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A19 | Chuk Yuen Tsuen village house | 3.3 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A20 | Hang Fook Garden | 4.2 | 1.5 / 4.5 / 7.5 | 92 / 92 / 91 | 0 / 0 / 0 |
| A21 | Ha San Wai village house | 4.2 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A22 | Ha San Wai village house | 3.5 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A23 | Yau Mei San Tsuen village house | 3.6 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |

Annex 2 in Appendix 3-13

| ASR No. | Description | Ground Level, mPD | High Above Ground, m | FSP Concentration ($\mu\text{g}/\text{m}^3$) | |
|----------------------------|--|-------------------|----------------------|---|----------------------|
| | | | | With Background ** | Without Background * |
| A24 | Christian Ministry Institute | 3.5 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A25 | Royal Palms | 4.9 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A26 | Hong Chi Morninglight School Yuen Long | 4.4 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A27 | Existing building | 4.5 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 3 / 2 / 1 |
| A28 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A29 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A30 | Fairview Park | 4.5 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A31 | Fairview Park | 3.9 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A32 | A Restaurant near Helene Terrace | 4.5 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 2 / 1 / 1 |
| A33 | Fairview Park | 3.9 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A34 | Palm Springs | 5.2 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A35 | Palm Springs | 5 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A36 | Yau Mei San Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A1Pa | Planned RD Site | 3 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A2Pa | Planned RD Site | 3 | 1.5 / 4.5 / 7.5 | 92 / 92 / 92 | 1 / 1 / 1 |
| A3Pa | Planned REC Site | 3 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| A4Pa | Planned REC Site | 3 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 1 / 1 / 1 |
| A5Pa | Planned Yau Mei Site | 2 | 1.5 / 4.5 / 7.5 | N/A | N/A |
| V01 | Planned NT exempted houses | 3 | 1.5 / 4.5 / 7.5 | 92 / 92 / 92 | 1 / 1 / 0 |
| V02 | Planned "V" zone | 2.4 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 0 / 0 / 0 |
| V03 | Planned "V" zone | 3 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 2 / 1 / 1 |
| V04 | Planned "RD" zone | 4.8 | 1.5 / 4.5 / 7.5 | 91 / 91 / 91 | 3 / 1 / 1 |
| Max. Conc. | | | - | 92 | 3 |
| No. of exceedance @ | | | | 1 | - |
| Criteria | | | - | 75 (no. of exceedance allowed <= 9) | |

Remark: The above results are based on the 1st highest daily average concentrations

* Concentration due to contribution of Project Site.

** The above results have included the background level extracted from the PATH Output (year 2015). The hour-by-hour background contribution is estimated using output of PATH model, and added hour-by-hour to the Project contribution.

N/A - Not applicable in this cumulative impact assessment.

@ Total no. of exceedance based on the calculated cumulative concentration.

Table 4 Predicted Annual Average RSP Concentrations Due to “Kam Pok Road Site” Project (Mitigated Scenario)

| ASR No. | Description | Ground Level, mPD | High Above Ground, m | RSP Concentration ($\mu\text{g}/\text{m}^3$) | |
|---------|-------------------------------------|-------------------|----------------------|--|----------------------|
| | | | | With Background ** | Without Background * |
| A01 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0.1 / 0.1 / 0.1 |
| A01A | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 43.4 / 43.3 / 43.3 | 0.1 / 0.1 / 0.1 |
| A02 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0.1 / 0.1 / 0.1 |
| A02A | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0.1 / 0.1 / 0 |
| A03 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 43.4 / 43.4 / 43.3 | 0.1 / 0.1 / 0.1 |
| A04 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0.1 / 0.1 / 0 |
| A05 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A05A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A05B | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A06 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A06A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A07 | Yau Mei San Tsuen village house | 3.1 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A08 | Chuk Yuen Tsuen village house | 2.3 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A09 | Chuk Yuen Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A10 | Bethel High School | 4.4 | 1.5 / 4.5 / 7.5 | 43.4 / 43.3 / 43.3 | 0.1 / 0.1 / 0.1 |
| A10A | Bethel High School | 4.4 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0.1 / 0.1 / 0.1 |
| A11 | Helene Terrace | 4.5 | 1.5 / 4.5 / 7.5 | 43.4 / 43.4 / 43.3 | 0.2 / 0.1 / 0.1 |
| A12 | Villa Camilla | 6.5 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A13 | Fairview Park | 4.6 | 1.5 / 4.5 / 7.5 | 43.4 / 43.4 / 43.3 | 0.1 / 0.1 / 0.1 |
| A14 | Wong Chan Sook Ying Memorial School | 4.4 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0.1 / 0.1 / 0.1 |
| A15 | Man Yuen Tsuen village house | 4.1 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0.1 / 0.1 / 0.1 |
| A16 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A16A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A17 | Palm Springs | 5.7 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A18 | Yau Mei San Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A19 | Chuk Yuen Tsuen village house | 3.3 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A20 | Hang Fook Garden | 4.2 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A21 | Ha San Wai village house | 4.2 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0.1 / 0.1 / 0 |
| A22 | Ha San Wai village house | 3.5 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A23 | Yau Mei San Tsuen village house | 3.6 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |

Annex 2 in Appendix 3-13

| ASR No. | Description | Ground Level, mPD | High Above Ground, m | RSP Concentration ($\mu\text{g}/\text{m}^3$) | |
|-------------------|--|-------------------|----------------------|--|----------------------|
| | | | | With Background ** | Without Background * |
| A24 | Christian Ministry Institute | 3.5 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A25 | Royal Palms | 4.9 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A26 | Hong Chi Morninglight School Yuen Long | 4.4 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A27 | Existing building | 4.5 | 1.5 / 4.5 / 7.5 | 43.4 / 43.3 / 43.3 | 0.2 / 0.1 / 0 |
| A28 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A29 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A30 | Fairview Park | 4.5 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0.1 / 0 / 0 |
| A31 | Fairview Park | 3.9 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A32 | A Restaurant near Helene Terrace | 4.5 | 1.5 / 4.5 / 7.5 | 43.4 / 43.4 / 43.3 | 0.2 / 0.1 / 0.1 |
| A33 | Fairview Park | 3.9 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A34 | Palm Springs | 5.2 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A35 | Palm Springs | 5 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A36 | Yau Mei San Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A1Pa | Planned RD Site | 3 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A2Pa | Planned RD Site | 3 | 1.5 / 4.5 / 7.5 | 43.5 / 43.5 / 43.4 | 0.3 / 0.2 / 0.2 |
| A3Pa | Planned REC Site | 3 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| A4Pa | Planned REC Site | 3 | 1.5 / 4.5 / 7.5 | 43.4 / 43.3 / 43.3 | 0.1 / 0.1 / 0.1 |
| A5Pa | Planned Yau Mei Site | 2 | 1.5 / 4.5 / 7.5 | N/A | N/A |
| V01 | Planned NT exempted houses | 3 | 1.5 / 4.5 / 7.5 | 43.5 / 43.4 / 43.4 | 0.3 / 0.2 / 0.1 |
| V02 | Planned "V" zone | 2.4 | 1.5 / 4.5 / 7.5 | 43.3 / 43.3 / 43.3 | 0 / 0 / 0 |
| V03 | Planned "V" zone | 3 | 1.5 / 4.5 / 7.5 | 43.5 / 43.4 / 43.4 | 0.3 / 0.2 / 0.1 |
| V04 | Planned "RD" zone | 4.8 | 1.5 / 4.5 / 7.5 | 43.7 / 43.4 / 43.4 | 0.4 / 0.2 / 0.1 |
| Max. Conc. | - | | - | 43.7 | 0.4 |
| Criteria | - | | - | 50 | 50 |

Remark: * Concentration due to contribution of Project Site.

** The above results have included the background level extracted from the PATH Output (year 2015). The hour-by-hour background contribution is estimated using output of PATH model, and added hour-by-hour to the Project contribution.

N/A - Not applicable in this cumulative impact assessment.

Table 5 Predicted Annual Average FSP Concentrations Due to “Kam Pok Road Site” Project (Mitigated Scenario)

| ASR No. | Description | Ground Level, mPD | High Above Ground, m | FSP Concentration ($\mu\text{g}/\text{m}^3$) | |
|---------|-------------------------------------|-------------------|----------------------|--|----------------------|
| | | | | With Background ** | Without Background * |
| A01 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A01A | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A02 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A02A | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A03 | Fairview Park | 4.4 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A04 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A05 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A05A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A05B | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A06 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A06A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A07 | Yau Mei San Tsuen village house | 3.1 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A08 | Chuk Yuen Tsuen village house | 2.3 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A09 | Chuk Yuen Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A10 | Bethel High School | 4.4 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A10A | Bethel High School | 4.4 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A11 | Helene Terrace | 4.5 | 1.5 / 4.5 / 7.5 | 30.8 / 30.7 / 30.7 | 0 / 0 / 0 |
| A12 | Villa Camilla | 6.5 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A13 | Fairview Park | 4.6 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A14 | Wong Chan Sook Ying Memorial School | 4.4 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A15 | Man Yuen Tsuen village house | 4.1 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A16 | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A16A | Fairview Park | 4.2 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A17 | Palm Springs | 5.7 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A18 | Yau Mei San Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A19 | Chuk Yuen Tsuen village house | 3.3 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A20 | Hang Fook Garden | 4.2 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A21 | Ha San Wai village house | 4.2 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A22 | Ha San Wai village house | 3.5 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A23 | Yau Mei San Tsuen village house | 3.6 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |

Annex 2 in Appendix 3-13

| ASR No. | Description | Ground Level, mPD | High Above Ground, m | FSP Concentration ($\mu\text{g}/\text{m}^3$) | |
|-------------------|--|-------------------|----------------------|--|----------------------|
| | | | | With Background ** | Without Background * |
| A24 | Christian Ministry Institute | 3.5 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A25 | Royal Palms | 4.9 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A26 | Hong Chi Morninglight School Yuen Long | 4.4 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A27 | Existing building | 4.5 | 1.5 / 4.5 / 7.5 | 30.8 / 30.7 / 30.7 | 0.1 / 0 / 0 |
| A28 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A29 | Fairview Park | 4.3 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A30 | Fairview Park | 4.5 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A31 | Fairview Park | 3.9 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A32 | A Restaurant near Helene Terrace | 4.5 | 1.5 / 4.5 / 7.5 | 30.8 / 30.7 / 30.7 | 0.1 / 0 / 0 |
| A33 | Fairview Park | 3.9 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A34 | Palm Springs | 5.2 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A35 | Palm Springs | 5 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A36 | Yau Mei San Tsuen village house | 3.5 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A1Pa | Planned RD Site | 3 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A2Pa | Planned RD Site | 3 | 1.5 / 4.5 / 7.5 | 30.8 / 30.8 / 30.8 | 0.1 / 0.1 / 0 |
| A3Pa | Planned REC Site | 3 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A4Pa | Planned REC Site | 3 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| A5Pa | Planned Yau Mei Site | 2 | 1.5 / 4.5 / 7.5 | N/A | N/A |
| V01 | Planned NT exempted houses | 3 | 1.5 / 4.5 / 7.5 | 30.8 / 30.8 / 30.7 | 0.1 / 0.1 / 0 |
| V02 | Planned "V" zone | 2.4 | 1.5 / 4.5 / 7.5 | 30.7 / 30.7 / 30.7 | 0 / 0 / 0 |
| V03 | Planned "V" zone | 3 | 1.5 / 4.5 / 7.5 | 30.8 / 30.8 / 30.7 | 0.1 / 0.1 / 0 |
| V04 | Planned "RD" zone | 4.8 | 1.5 / 4.5 / 7.5 | 30.8 / 30.8 / 30.7 | 0.1 / 0.1 / 0 |
| Max. Conc. | - | | - | 30.8 | 0.1 |
| Criteria | - | | - | 35 | 35 |

Remark: * Concentration due to contribution of Project Site.

** The above results have included the background level extracted from the PATH Output (year 2015). The hour-by-hour background contribution is estimated using output of PATH model, and added hour-by-hour to the Project contribution.

N/A – Not applicable in this cumulative impact assessment.

Annex 3
(in Appendix 3-13)

Calculated Cumulative TSP, RSP and FSP Concentrations Due to
Concurrent Construction

Annex 3-1 Summary Table of Cumulative Highest Hourly TSP Level (Mitigated Scenario)

| ASR | X | Y | Z | Height above ground | Due to this Project Only (Filling/ excavation) (extracted from Appendix 3-6) | | Cumulative Levels Due to Concurrent Construction with planned "Kam Pok Road Site" Project | |
|------|--------|--------|-----|---------------------|--|----------------------------|---|----------------------------|
| | | | | | Max. Hourly TSP (With Bkg. Level) * | Max. Hourly TSP (W/o Bkg.) | Max. Hourly TSP (With Bkg. Level) * | Max. Hourly TSP (W/o Bkg.) |
| | | | | | With Bkg. Level | Without Bkg. level | With Bkg. Level | Without Bkg. level |
| A01 | 823101 | 837242 | 4.4 | 1.5 | 164 | 15 | 164 | 35 |
| A01A | 823124 | 837181 | 4.4 | 1.5 | 164 | 17 | 164 | 32 |
| A02 | 823093 | 837314 | 4.4 | 1.5 | 164 | 15 | 164 | 28 |
| A02A | 823120 | 837359 | 4.4 | 1.5 | 164 | 16 | 164 | 35 |
| A03 | 823261 | 837374 | 4.4 | 1.5 | 164 | 26 | 164 | 61 |
| A04 | 823277 | 837456 | 4.3 | 1.5 | 164 | 30 | 164 | 53 |
| A05 | 823287 | 837674 | 4.2 | 1.5 | 164 | 29 | 164 | 29 |
| A05A | 823270 | 837645 | 4.2 | 1.5 | 164 | 31 | 164 | 31 |
| A05B | 823309 | 837726 | 4.2 | 1.5 | 164 | 39 | 164 | 39 |
| A06 | 823405 | 837870 | 4.2 | 1.5 | 164 | 66 | 164 | 66 |
| A06A | 823366 | 837884 | 4.2 | 1.5 | 164 | 56 | 164 | 56 |
| A07 | 823789 | 837883 | 3.1 | 1.5 | 295 | 212 | 295 | 212 |
| A08 | 823679 | 837572 | 2.3 | 1.5 | 164 | 47 | 164 | 47 |
| A09 | 823717 | 837567 | 3.5 | 1.5 | 165 | 42 | 165 | 42 |
| A10 | 823228 | 837344 | 4.4 | 1.5 | 164 | 24 | 164 | 54 |
| A10A | 823189 | 837327 | 4.4 | 1.5 | 164 | 21 | 164 | 46 |
| A11 | 823382 | 837043 | 4.5 | 1.5 | 164 | 10 | 171 | 88 |
| A12 | 823509 | 837018 | 6.5 | 1.5 | 164 | 17 | 166 | 58 |
| A13 | 823171 | 837105 | 4.6 | 1.5 | 164 | 15 | 164 | 38 |
| A14 | 823176 | 837031 | 4.4 | 1.5 | 164 | 13 | 164 | 45 |
| A15 | 823272 | 836947 | 4.1 | 1.5 | 164 | 9 | 164 | 36 |
| A16 | 823496 | 837908 | 4.2 | 1.5 | 218 | 184 | 218 | 184 |
| A16A | 823470 | 837872 | 4.2 | 1.5 | 185 | 134 | 185 | 134 |
| A17 | 823501 | 838152 | 5.7 | 1.5 | 164 | 50 | 164 | 56 |
| A18 | 823726 | 838016 | 3.5 | 1.5 | 219 | 114 | 219 | 114 |
| A19 | 823750 | 837460 | 3.3 | 1.5 | 164 | 31 | 164 | 31 |
| A20 | 823745 | 837355 | 4.2 | 1.5 | 164 | 18 | 164 | 33 |
| A21 | 823714 | 837274 | 4.2 | 1.5 | 164 | 16 | 164 | 36 |
| A22 | 823645 | 837066 | 3.5 | 1.5 | 164 | 16 | 165 | 49 |
| A23 | 823921 | 837887 | 3.6 | 1.5 | 164 | 48 | 164 | 48 |
| A24 | 823928 | 837924 | 3.5 | 1.5 | 164 | 44 | 164 | 44 |
| A25 | 823756 | 838085 | 4.9 | 1.5 | 200 | 69 | 200 | 69 |
| A26 | 823041 | 838099 | 4.4 | 1.5 | 164 | 55 | 164 | 55 |
| A27 | 823466 | 837090 | 4.5 | 1.5 | 164 | 17 | 316 | 227 |
| A28 | 823287 | 837864 | 4.3 | 1.5 | 164 | 33 | 164 | 33 |
| A29 | 823279 | 837827 | 4.3 | 1.5 | 164 | 37 | 164 | 37 |
| A30 | 823293 | 837535 | 4.5 | 1.5 | 164 | 28 | 164 | 44 |
| A31 | 823394 | 837960 | 3.9 | 1.5 | 181 | 123 | 181 | 123 |
| A32 | 823353 | 837069 | 4.5 | 1.5 | 164 | 10 | 166 | 89 |
| A33 | 823439 | 837932 | 3.9 | 1.5 | 177 | 132 | 177 | 132 |
| A34 | 823425 | 838140 | 5.2 | 1.5 | 164 | 43 | 164 | 43 |
| A35 | 823581 | 838166 | 5 | 1.5 | 177 | 89 | 177 | 94 |
| A36 | 823703 | 837968 | 3.5 | 1.5 | 208 | 153 | 208 | 153 |
| A1Pa | 823688 | 837719 | 3 | 1.5 | 179 | 77 | 179 | 80 |
| A2Pa | 823545 | 837421 | 3 | 1.5 | 164 | 40 | 176 | 109 |
| A3Pa | 823455 | 837785 | 4 | 1.5 | 164 | 121 | 164 | 121 |
| A4Pa | 823305 | 837427 | 4 | 1.5 | 164 | 29 | 213 | 179 |
| A5Pa | 823602 | 837796 | 4 | 1.5 | 164 | 29 | ** | ** |
| V01 | 823572 | 837356 | 3 | 1.5 | 164 | 35 | 168 | 152 |
| V02 | 823780 | 837738 | 2.4 | 1.5 | 169 | 90 | 169 | 90 |
| V03 | 823525 | 837232 | 3 | 1.5 | 164 | 27 | 227 | 164 |
| V04 | 823385 | 837124 | 4.8 | 1.5 | 164 | 10 | 224 | 143 |
| A01 | 823101 | 837242 | 4.4 | 4.5 | 164 | 14 | 164 | 31 |
| A01A | 823124 | 837181 | 4.4 | 4.5 | 164 | 17 | 164 | 30 |
| A02 | 823093 | 837314 | 4.4 | 4.5 | 164 | 14 | 164 | 26 |
| A02A | 823120 | 837359 | 4.4 | 4.5 | 164 | 15 | 164 | 31 |
| A03 | 823261 | 837374 | 4.4 | 4.5 | 164 | 25 | 164 | 45 |
| A04 | 823277 | 837456 | 4.3 | 4.5 | 164 | 30 | 164 | 42 |
| A05 | 823287 | 837674 | 4.2 | 4.5 | 164 | 28 | 164 | 28 |
| A05A | 823270 | 837645 | 4.2 | 4.5 | 164 | 28 | 164 | 28 |
| A05B | 823309 | 837726 | 4.2 | 4.5 | 164 | 36 | 164 | 36 |
| A06 | 823405 | 837870 | 4.2 | 4.5 | 164 | 55 | 164 | 55 |
| A06A | 823366 | 837884 | 4.2 | 4.5 | 164 | 49 | 164 | 49 |
| A07 | 823789 | 837883 | 3.1 | 4.5 | 215 | 132 | 215 | 132 |
| A08 | 823679 | 837572 | 2.3 | 4.5 | 164 | 44 | 164 | 44 |
| A09 | 823717 | 837567 | 3.5 | 4.5 | 165 | 40 | 165 | 40 |
| A10 | 823228 | 837344 | 4.4 | 4.5 | 164 | 24 | 164 | 43 |
| A10A | 823189 | 837327 | 4.4 | 4.5 | 164 | 21 | 164 | 40 |
| A11 | 823382 | 837043 | 4.5 | 4.5 | 164 | 10 | 164 | 72 |
| A12 | 823509 | 837018 | 6.5 | 4.5 | 164 | 17 | 166 | 54 |
| A13 | 823171 | 837105 | 4.6 | 4.5 | 164 | 15 | 164 | 36 |
| A14 | 823176 | 837031 | 4.4 | 4.5 | 164 | 13 | 164 | 42 |
| A15 | 823272 | 836947 | 4.1 | 4.5 | 164 | 9 | 164 | 34 |
| A16 | 823496 | 837908 | 4.2 | 4.5 | 164 | 107 | 164 | 107 |
| A16A | 823470 | 837872 | 4.2 | 4.5 | 175 | 100 | 175 | 100 |
| A17 | 823501 | 838152 | 5.7 | 4.5 | 164 | 44 | 164 | 49 |
| A18 | 823726 | 838016 | 3.5 | 4.5 | 208 | 90 | 208 | 90 |
| A19 | 823750 | 837460 | 3.3 | 4.5 | 164 | 30 | 164 | 30 |

| ASR | X | Y | Z | Height above ground | Max. Hourly TSP (With Bkg. Level) * | | Max. Hourly TSP (W/o Bkg.) | |
|--|--------|--------|-----|---------------------|-------------------------------------|--------------------|----------------------------|--------------------|
| | | | | | With Bkg. Level | Without Bkg. level | With Bkg. Level | Without Bkg. level |
| A20 | 823745 | 837355 | 4.2 | 4.5 | 164 | 18 | 164 | 31 |
| A21 | 823714 | 837274 | 4.2 | 4.5 | 164 | 16 | 164 | 33 |
| A22 | 823645 | 837066 | 3.5 | 4.5 | 164 | 16 | 164 | 47 |
| A23 | 823921 | 837887 | 3.6 | 4.5 | 164 | 43 | 164 | 43 |
| A24 | 823928 | 837924 | 3.5 | 4.5 | 164 | 43 | 164 | 43 |
| A25 | 823756 | 838085 | 4.9 | 4.5 | 196 | 61 | 196 | 61 |
| A26 | 823041 | 838099 | 4.4 | 4.5 | 164 | 53 | 164 | 53 |
| A27 | 823466 | 837090 | 4.5 | 4.5 | 164 | 17 | 253 | 163 |
| A28 | 823287 | 837864 | 4.3 | 4.5 | 164 | 31 | 164 | 31 |
| A29 | 823279 | 837827 | 4.3 | 4.5 | 164 | 35 | 164 | 35 |
| A30 | 823293 | 837535 | 4.5 | 4.5 | 164 | 26 | 164 | 42 |
| A31 | 823394 | 837960 | 3.9 | 4.5 | 164 | 103 | 164 | 103 |
| A32 | 823353 | 837069 | 4.5 | 4.5 | 164 | 10 | 164 | 82 |
| A33 | 823439 | 837932 | 3.9 | 4.5 | 164 | 101 | 164 | 101 |
| A34 | 823425 | 838140 | 5.2 | 4.5 | 164 | 42 | 164 | 42 |
| A35 | 823581 | 838166 | 5 | 4.5 | 173 | 79 | 173 | 83 |
| A36 | 823703 | 837968 | 3.5 | 4.5 | 190 | 94 | 190 | 94 |
| A1Pa | 823688 | 837719 | 3 | 4.5 | 169 | 67 | 169 | 67 |
| A2Pa | 823545 | 837421 | 3 | 4.5 | 164 | 39 | 167 | 94 |
| A3Pa | 823455 | 837785 | 4 | 4.5 | 164 | 72 | 164 | 72 |
| A4Pa | 823305 | 837427 | 4 | 4.5 | 164 | 28 | 164 | 110 |
| A5Pa | 823602 | 837796 | 4 | 4.5 | 164 | 28 | ** | ** |
| V01 | 823572 | 837356 | 3 | 4.5 | 164 | 34 | 164 | 67 |
| V02 | 823780 | 837738 | 2.4 | 4.5 | 168 | 77 | 168 | 77 |
| V03 | 823525 | 837232 | 3 | 4.5 | 164 | 27 | 175 | 96 |
| V04 | 823385 | 837124 | 4.8 | 4.5 | 164 | 10 | 164 | 85 |
| A01 | 823101 | 837242 | 4.4 | 7.5 | 164 | 14 | 164 | 25 |
| A01A | 823124 | 837181 | 4.4 | 7.5 | 164 | 16 | 164 | 27 |
| A02 | 823093 | 837314 | 4.4 | 7.5 | 164 | 14 | 164 | 24 |
| A02A | 823120 | 837359 | 4.4 | 7.5 | 164 | 14 | 164 | 24 |
| A03 | 823261 | 837374 | 4.4 | 7.5 | 164 | 24 | 164 | 32 |
| A04 | 823277 | 837456 | 4.3 | 7.5 | 164 | 28 | 164 | 29 |
| A05 | 823287 | 837674 | 4.2 | 7.5 | 164 | 26 | 164 | 26 |
| A05A | 823270 | 837645 | 4.2 | 7.5 | 164 | 25 | 164 | 25 |
| A05B | 823309 | 837726 | 4.2 | 7.5 | 164 | 32 | 164 | 32 |
| A06 | 823405 | 837870 | 4.2 | 7.5 | 164 | 45 | 164 | 45 |
| A06A | 823366 | 837884 | 4.2 | 7.5 | 164 | 37 | 164 | 37 |
| A07 | 823789 | 837883 | 3.1 | 7.5 | 164 | 84 | 164 | 84 |
| A08 | 823679 | 837572 | 2.3 | 7.5 | 164 | 38 | 164 | 38 |
| A09 | 823717 | 837567 | 3.5 | 7.5 | 165 | 35 | 165 | 35 |
| A10 | 823228 | 837344 | 4.4 | 7.5 | 164 | 23 | 164 | 38 |
| A10A | 823189 | 837327 | 4.4 | 7.5 | 164 | 20 | 164 | 33 |
| A11 | 823382 | 837043 | 4.5 | 7.5 | 164 | 10 | 164 | 48 |
| A12 | 823509 | 837018 | 6.5 | 7.5 | 164 | 16 | 165 | 46 |
| A13 | 823171 | 837105 | 4.6 | 7.5 | 164 | 14 | 164 | 31 |
| A14 | 823176 | 837031 | 4.4 | 7.5 | 164 | 12 | 164 | 37 |
| A15 | 823272 | 836947 | 4.1 | 7.5 | 164 | 9 | 164 | 30 |
| A16 | 823496 | 837908 | 4.2 | 7.5 | 164 | 55 | 164 | 55 |
| A16A | 823470 | 837872 | 4.2 | 7.5 | 164 | 58 | 164 | 58 |
| A17 | 823501 | 838152 | 5.7 | 7.5 | 164 | 33 | 164 | 40 |
| A18 | 823726 | 838016 | 3.5 | 7.5 | 192 | 58 | 192 | 58 |
| A19 | 823750 | 837460 | 3.3 | 7.5 | 164 | 28 | 164 | 28 |
| A20 | 823745 | 837355 | 4.2 | 7.5 | 164 | 17 | 164 | 26 |
| A21 | 823714 | 837274 | 4.2 | 7.5 | 164 | 16 | 164 | 28 |
| A22 | 823645 | 837066 | 3.5 | 7.5 | 164 | 16 | 164 | 43 |
| A23 | 823921 | 837887 | 3.6 | 7.5 | 164 | 37 | 164 | 37 |
| A24 | 823928 | 837924 | 3.5 | 7.5 | 164 | 39 | 164 | 39 |
| A25 | 823756 | 838085 | 4.9 | 7.5 | 188 | 49 | 188 | 49 |
| A26 | 823041 | 838099 | 4.4 | 7.5 | 164 | 49 | 164 | 49 |
| A27 | 823466 | 837090 | 4.5 | 7.5 | 164 | 17 | 183 | 93 |
| A28 | 823287 | 837864 | 4.3 | 7.5 | 164 | 28 | 164 | 28 |
| A29 | 823279 | 837827 | 4.3 | 7.5 | 164 | 30 | 164 | 30 |
| A30 | 823293 | 837535 | 4.5 | 7.5 | 164 | 24 | 164 | 38 |
| A31 | 823394 | 837960 | 3.9 | 7.5 | 164 | 73 | 164 | 73 |
| A32 | 823353 | 837069 | 4.5 | 7.5 | 164 | 10 | 164 | 70 |
| A33 | 823439 | 837932 | 3.9 | 7.5 | 164 | 61 | 164 | 61 |
| A34 | 823425 | 838140 | 5.2 | 7.5 | 164 | 40 | 164 | 40 |
| A35 | 823581 | 838166 | 5 | 7.5 | 167 | 62 | 167 | 66 |
| A36 | 823703 | 837968 | 3.5 | 7.5 | 178 | 67 | 178 | 69 |
| A1Pa | 823688 | 837719 | 3 | 7.5 | 165 | 56 | 165 | 56 |
| A2Pa | 823545 | 837421 | 3 | 7.5 | 164 | 36 | 165 | 71 |
| A3Pa | 823455 | 837785 | 4 | 7.5 | 164 | 60 | 164 | 60 |
| A4Pa | 823305 | 837427 | 4 | 7.5 | 164 | 27 | 164 | 43 |
| A5Pa | 823602 | 837796 | 4 | 7.5 | 164 | 27 | ** | ** |
| V01 | 823572 | 837356 | 3 | 7.5 | 164 | 32 | 164 | 51 |
| V02 | 823780 | 837738 | 2.4 | 7.5 | 168 | 58 | 168 | 58 |
| V03 | 823525 | 837232 | 3 | 7.5 | 164 | 26 | 164 | 65 |
| V04 | 823385 | 837124 | 4.8 | 7.5 | 164 | 10 | 164 | 72 |
| Max. TSP Level, ug/m³ | | | | | 295 | 212 | 316 | 227 |
| Relevant AQO Criteria, ug/m³ | | | | | 500 | 500 | 500 | 500 |

Remark: * The above results have included the background level extracted from the PATH Output (year 2015). The hour-by-hour background contribution is estimated using output file of PATH model, and added hour-by-hour to the Project contribution in order to calculate the total TSP level.

** The concerned ASR represents planned ASR within the planned "Kam Pok Road Site" Project, which is not applicable in this cumulative impact assessment.

Annex 3-2 Summary Table of Cumulative Daily Average RSP Level (Mitigated Scenario)

| ASR | X | Y | Z | Height above ground | Due to this Project Only (Filling/ excavation) (extracted from Appendix 3-7-1 in Appendix 3-7 of this EIA report) | | | | Cumulative Levels Due to Concurrent Construction with planned "Kam Pok Road Site" Project | | | |
|------|-----------|----------|-----|---------------------|--|--------------------|--|--------------------|--|--------------------|--|--------------------|
| | | | | | 1st Highest Daily RSP (With Bkg. Level) * | | 10th Highest Daily RSP (With Bkg. Level) * | | 1st Highest Daily RSP (With Bkg. Level) * | | 10th Highest Daily RSP (With Bkg. Level) * | |
| | | | | | With Bkg. Level | Without Bkg. Level | With Bkg. Level | Without Bkg. Level | With Bkg. Level | Without Bkg. Level | With Bkg. Level | Without Bkg. Level |
| A01 | 823101.12 | 837242.4 | 4.4 | 1.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A01A | 823124.28 | 837181.3 | 4.4 | 1.5 | 122 | 0 | 82 | 0 | 122 | 2 | 85 | 1 |
| A02 | 823092.84 | 837314 | 4.4 | 1.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A02A | 823119.86 | 837359.1 | 4.4 | 1.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A03 | 823260.81 | 837373.7 | 4.4 | 1.5 | 122 | 1 | 82 | 0 | 122 | 2 | 85 | 1 |
| A04 | 823276.81 | 837456.1 | 4.3 | 1.5 | 122 | 1 | 82 | 1 | 122 | 2 | 85 | 1 |
| A05 | 823287.12 | 837673.9 | 4.2 | 1.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A05A | 823269.63 | 837644.5 | 4.2 | 1.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A05B | 823308.73 | 837726.2 | 4.2 | 1.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A06 | 823405 | 837870 | 4.2 | 1.5 | 122 | 4 | 82 | 3 | 122 | 4 | 85 | 3 |
| A06A | 823365.92 | 837883.6 | 4.2 | 1.5 | 122 | 4 | 82 | 2 | 122 | 4 | 85 | 2 |
| A07 | 823788.62 | 837882.5 | 3.1 | 1.5 | 125 | 6 | 82 | 3 | 125 | 6 | 85 | 3 |
| A08 | 823679.12 | 837571.7 | 2.3 | 1.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A09 | 823717.31 | 837567 | 3.5 | 1.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A10 | 823227.62 | 837343.9 | 4.4 | 1.5 | 122 | 1 | 82 | 0 | 122 | 2 | 85 | 1 |
| A10A | 823188.8 | 837327.3 | 4.4 | 1.5 | 122 | 1 | 82 | 0 | 122 | 2 | 85 | 1 |
| A11 | 823382.12 | 837043.2 | 4.5 | 1.5 | 122 | 0 | 82 | 0 | 122 | 9 | 85 | 1 |
| A12 | 823509.19 | 837017.6 | 6.5 | 1.5 | 122 | 0 | 82 | 0 | 122 | 2 | 85 | 0 |
| A13 | 823171.38 | 837105 | 4.6 | 1.5 | 122 | 0 | 82 | 0 | 122 | 2 | 85 | 1 |
| A14 | 823175.5 | 837030.5 | 4.4 | 1.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 1 |
| A15 | 823271.81 | 836947.2 | 4.1 | 1.5 | 122 | 0 | 82 | 0 | 122 | 3 | 85 | 1 |
| A16 | 823496 | 837908.2 | 4.2 | 1.5 | 122 | 9 | 82 | 6 | 122 | 9 | 85 | 6 |
| A16A | 823470.21 | 837871.6 | 4.2 | 1.5 | 122 | 10 | 82 | 6 | 122 | 10 | 85 | 6 |
| A17 | 823500.62 | 838152.4 | 5.7 | 1.5 | 122 | 3 | 82 | 2 | 122 | 3 | 85 | 2 |
| A18 | 823725.62 | 838015.9 | 3.5 | 1.5 | 124 | 4 | 82 | 2 | 124 | 4 | 85 | 2 |
| A19 | 823749.5 | 837459.6 | 3.3 | 1.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 0 |
| A20 | 823745.38 | 837355.3 | 4.2 | 1.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 0 |
| A21 | 823713.88 | 837274 | 4.2 | 1.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 1 |
| A22 | 823645.12 | 837066.1 | 3.5 | 1.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 0 |
| A23 | 823920.62 | 837886.7 | 3.6 | 1.5 | 123 | 2 | 82 | 1 | 123 | 2 | 85 | 1 |
| A24 | 823927.69 | 837923.6 | 3.5 | 1.5 | 123 | 1 | 82 | 1 | 123 | 1 | 85 | 1 |
| A25 | 823756 | 838085.2 | 4.9 | 1.5 | 123 | 2 | 82 | 1 | 123 | 2 | 85 | 1 |
| A26 | 823040.62 | 838098.6 | 4.4 | 1.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 0 |
| A27 | 823465.59 | 837089.9 | 4.5 | 1.5 | 122 | 0 | 82 | 0 | 122 | 11 | 85 | 2 |
| A28 | 823286.57 | 837864.2 | 4.3 | 1.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A29 | 823279.17 | 837826.6 | 4.3 | 1.5 | 122 | 3 | 82 | 1 | 122 | 3 | 85 | 1 |
| A30 | 823293.2 | 837534.5 | 4.5 | 1.5 | 122 | 1 | 82 | 1 | 122 | 1 | 85 | 1 |
| A31 | 823393.53 | 837959.7 | 3.9 | 1.5 | 122 | 7 | 82 | 3 | 122 | 7 | 85 | 3 |
| A32 | 823353.02 | 837069.1 | 4.5 | 1.5 | 122 | 0 | 82 | 0 | 122 | 6 | 85 | 2 |
| A33 | 823439.27 | 837932.1 | 3.9 | 1.5 | 122 | 9 | 82 | 4 | 122 | 9 | 85 | 4 |
| A34 | 823424.53 | 838140.2 | 5.2 | 1.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A35 | 823581.4 | 838166.3 | 5 | 1.5 | 122 | 4 | 82 | 2 | 122 | 4 | 85 | 2 |
| A36 | 823703.1 | 837968.5 | 3.5 | 1.5 | 125 | 6 | 82 | 4 | 125 | 6 | 85 | 4 |
| A1Pa | 823687.9 | 837719 | 3 | 1.5 | 122 | 4 | 82 | 1 | 122 | 4 | 86 | 2 |
| A2Pa | 823545.2 | 837421.1 | 3 | 1.5 | 122 | 1 | 82 | 0 | 124 | 4 | 85 | 2 |
| A3Pa | 823454.7 | 837785.1 | 4 | 1.5 | 122 | 10 | 82 | 4 | 122 | 10 | 85 | 4 |
| A4Pa | 823304.9 | 837427.1 | 4 | 1.5 | 122 | 1 | 82 | 1 | 122 | 5 | 85 | 1 |
| A5Pa | 823602.1 | 837795.8 | 4 | 1.5 | 122 | 1 | 82 | 0 | ** | ** | ** | ** |
| V01 | 823571.7 | 837355.7 | 3 | 1.5 | 122 | 1 | 82 | 0 | 124 | 4 | 85 | 2 |
| V02 | 823780.1 | 837738.5 | 2.4 | 1.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| V03 | 823524.7 | 837232 | 3 | 1.5 | 122 | 1 | 82 | 0 | 122 | 6 | 85 | 3 |
| V04 | 823384.5 | 837124.2 | 4.8 | 1.5 | 122 | 0 | 82 | 0 | 122 | 10 | 85 | 4 |
| A01 | 823101.12 | 837242.4 | 4.4 | 4.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A01A | 823124.28 | 837181.3 | 4.4 | 4.5 | 122 | 0 | 82 | 0 | 122 | 2 | 85 | 1 |
| A02 | 823092.84 | 837314 | 4.4 | 4.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A02A | 823119.86 | 837359.1 | 4.4 | 4.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A03 | 823260.81 | 837373.7 | 4.4 | 4.5 | 122 | 1 | 82 | 0 | 122 | 2 | 85 | 1 |
| A04 | 823276.81 | 837456.1 | 4.3 | 4.5 | 122 | 1 | 82 | 1 | 122 | 2 | 85 | 1 |
| A05 | 823287.12 | 837673.9 | 4.2 | 4.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A05A | 823269.63 | 837644.5 | 4.2 | 4.5 | 122 | 1 | 82 | 1 | 122 | 1 | 85 | 1 |
| A05B | 823308.73 | 837726.2 | 4.2 | 4.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A06 | 823405 | 837870 | 4.2 | 4.5 | 122 | 3 | 82 | 2 | 122 | 3 | 85 | 2 |
| A06A | 823365.92 | 837883.6 | 4.2 | 4.5 | 122 | 3 | 82 | 2 | 122 | 3 | 85 | 2 |
| A07 | 823788.62 | 837882.5 | 3.1 | 4.5 | 124 | 5 | 82 | 2 | 124 | 5 | 85 | 2 |
| A08 | 823679.12 | 837571.7 | 2.3 | 4.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A09 | 823717.31 | 837567 | 3.5 | 4.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 0 |
| A10 | 823227.62 | 837343.9 | 4.4 | 4.5 | 122 | 1 | 82 | 0 | 122 | 2 | 85 | 1 |
| A10A | 823188.8 | 837327.3 | 4.4 | 4.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A11 | 823382.12 | 837043.2 | 4.5 | 4.5 | 122 | 0 | 82 | 0 | 122 | 7 | 85 | 1 |
| A12 | 823509.19 | 837017.6 | 6.5 | 4.5 | 122 | 0 | 82 | 0 | 122 | 2 | 85 | 0 |
| A13 | 823171.38 | 837105 | 4.6 | 4.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 1 |
| A14 | 823175.5 | 837030.5 | 4.4 | 4.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 1 |
| A15 | 823271.81 | 836947.2 | 4.1 | 4.5 | 122 | 0 | 82 | 0 | 122 | 2 | 85 | 1 |
| A16 | 823496 | 837908.2 | 4.2 | 4.5 | 122 | 6 | 82 | 3 | 122 | 6 | 85 | 3 |
| A16A | 823470.21 | 837871.6 | 4.2 | 4.5 | 122 | 5 | 82 | 3 | 122 | 5 | 85 | 3 |
| A17 | 823500.62 | 838152.4 | 5.7 | 4.5 | 122 | 3 | 82 | 2 | 122 | 3 | 85 | 1 |
| A18 | 823725.62 | 838015.9 | 3.5 | 4.5 | 123 | 3 | 82 | 2 | 123 | 3 | 85 | 2 |
| A19 | 823749.5 | 837459.6 | 3.3 | 4.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 0 |
| A20 | 823745.38 | 837355.3 | 4.2 | 4.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 0 |
| A21 | 823713.88 | 837274 | 4.2 | 4.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 1 |
| A22 | 823645.12 | 837066.1 | 3.5 | 4.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 0 |
| A23 | 823920.62 | 837886.7 | 3.6 | 4.5 | 123 | 2 | 82 | 1 | 123 | 2 | 85 | 1 |
| A24 | 823927.69 | 837923.6 | 3.5 | 4.5 | 123 | 1 | 82 | 1 | 123 | 1 | 85 | 1 |
| A25 | 823756 | 838085.2 | 4.9 | 4.5 | 123 | 2 | 82 | 1 | 123 | 2 | 85 | 1 |
| A26 | 823040.62 | 838098.6 | 4.4 | 4.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 0 |
| A27 | 823465.59 | 837089.9 | 4.5 | 4.5 | 122 | 0 | 82 | 0 | 122 | 5 | 85 | 1 |
| A28 | 823286.57 | 837864.2 | 4.3 | 4.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A29 | 823279.17 | 837826.6 | 4.3 | 4.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A30 | 823293.2 | 837534.5 | 4.5 | 4.5 | 122 | 1 | 82 | 1 | 122 | 1 | 85 | 1 |
| A31 | 823393.53 | 837959.7 | 3.9 | 4.5 | 122 | 4 | 82 | 2 | 122 | 4 | 85 | 2 |
| A32 | 823353.02 | 837069.1 | 4.5 | 4.5 | 122 | 0 | 82 | 0 | 122 | 5 | 85 | 1 |
| A33 | 823439.27 | 837932.1 | 3.9 | 4.5 | 122 | 5 | 82 | 3 | 122 | 5 | 85 | 3 |
| A34 | 823424.53 | 838140.2 | 5.2 | 4.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A35 | 823581.4 | 838166.3 | 5 | 4.5 | 122 | 3 | 82 | 2 | 122 | 3 | 85 | 2 |
| A36 | 823703.1 | 837968.5 | 3.5 | 4.5 | 124 | 4 | 82 | 3 | 124 | 4 | 85 | 3 |
| A1Pa | 823687.9 | 837719 | 3 | 4.5 | 122 | 3 | 82 | 1 | 122 | 3 | 85 | 1 |
| A2Pa | 823545.2 | 837421.1 | 3 | 4.5 | 122 | 1 | 82 | 0 | 123 | 3 | 85 | 1 |
| A3Pa | 823454.7 | 837785.1 | 4 | 4.5 | 122 | 4 | 82 | 3 | 122 | 4 | 85 | 3 |
| A4Pa | 823304.9 | 837427.1 | 4 | 4.5 | 122 | 1 | 82 | 1 | 122 | 3 | 85 | 1 |
| A5Pa | 823602.1 | 837795.8 | 4 | 4.5 | 122 | 1 | 82 | 0 | ** | ** | ** | ** |
| V01 | 823571.7 | 837355.7 | 3 | 4.5 | 122 | 1 | 82 | 0 | 123 | 2 | 85 | 1 |
| V02 | 823780.1 | 837738.5 | 2.4 | 4.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| V03 | 823524.7 | 837232 | 3 | 4.5 | 122 | 1 | 82 | 0 | 122 | 3 | 85 | 2 |
| V04 | 823384.5 | 837124.2 | 4.8 | 4.5 | 122 | 0 | 82 | 0 | 122 | 5 | 85 | 2 |
| A01 | 823101.12 | 837242.4 | 4.4 | 7.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A01A | 823124.28 | 837181.3 | 4.4 | 7.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 1 |
| A02 | 823092.84 | 837314 | 4.4 | 7.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A02A | 823119.86 | 837359.1 | 4.4 | 7.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A03 | 823260.81 | 837373.7 | 4.4 | 7.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |

| ASR | X | Y | Z | Height above ground | 1st Highest Daily RSP (With Bkg. Level) * | | 10th Highest Daily RSP (With Bkg. Level) * | | 1st Highest Daily RSP (With Bkg. Level) * | | 10th Highest Daily RSP (With Bkg. Level) * | |
|--|-----------|----------|-----|---------------------|---|--------------------|--|--------------------|---|--------------------|--|--------------------|
| | | | | | With Bkg. Level | Without Bkg. Level | With Bkg. Level | Without Bkg. Level | With Bkg. Level | Without Bkg. Level | With Bkg. Level | Without Bkg. Level |
| A04 | 823276.81 | 837456.1 | 4.3 | 7.5 | 122 | 1 | 82 | 1 | 122 | 1 | 85 | 1 |
| A05 | 823287.12 | 837673.9 | 4.2 | 7.5 | 122 | 1 | 82 | 1 | 122 | 1 | 85 | 1 |
| A05A | 823269.63 | 837644.5 | 4.2 | 7.5 | 122 | 1 | 82 | 1 | 122 | 1 | 85 | 1 |
| A05B | 823308.73 | 837726.2 | 4.2 | 7.5 | 122 | 1 | 82 | 1 | 122 | 1 | 85 | 1 |
| A06 | 823405 | 837870 | 4.2 | 7.5 | 122 | 3 | 82 | 2 | 122 | 3 | 85 | 2 |
| A06A | 823365.92 | 837883.6 | 4.2 | 7.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A07 | 823788.62 | 837882.5 | 3.1 | 7.5 | 124 | 3 | 82 | 2 | 124 | 3 | 85 | 2 |
| A08 | 823679.12 | 837571.7 | 2.3 | 7.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A09 | 823717.31 | 837567 | 3.5 | 7.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 0 |
| A10 | 823227.62 | 837343.9 | 4.4 | 7.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A10A | 823188.8 | 837327.3 | 4.4 | 7.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 1 |
| A11 | 823382.12 | 837043.2 | 4.5 | 7.5 | 122 | 0 | 82 | 0 | 122 | 4 | 85 | 1 |
| A12 | 823509.19 | 837017.6 | 6.5 | 7.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 0 |
| A13 | 823171.38 | 837105 | 4.6 | 7.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 1 |
| A14 | 823175.5 | 837030.5 | 4.4 | 7.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 1 |
| A15 | 823271.81 | 836947.2 | 4.1 | 7.5 | 122 | 0 | 82 | 0 | 122 | 2 | 85 | 1 |
| A16 | 823496 | 837908.2 | 4.2 | 7.5 | 122 | 3 | 82 | 2 | 122 | 3 | 85 | 2 |
| A16A | 823470.21 | 837871.6 | 4.2 | 7.5 | 122 | 3 | 82 | 2 | 122 | 3 | 85 | 2 |
| A17 | 823500.62 | 838152.4 | 5.7 | 7.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A18 | 823725.62 | 838015.9 | 3.5 | 7.5 | 123 | 2 | 82 | 2 | 123 | 2 | 85 | 2 |
| A19 | 823749.5 | 837459.6 | 3.3 | 7.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 0 |
| A20 | 823745.38 | 837355.3 | 4.2 | 7.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 0 |
| A21 | 823713.88 | 837274 | 4.2 | 7.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 1 |
| A22 | 823645.12 | 837066.1 | 3.5 | 7.5 | 122 | 0 | 82 | 0 | 122 | 1 | 85 | 0 |
| A23 | 823920.62 | 837886.7 | 3.6 | 7.5 | 123 | 2 | 82 | 1 | 123 | 2 | 85 | 1 |
| A24 | 823927.69 | 837923.6 | 3.5 | 7.5 | 123 | 1 | 82 | 1 | 123 | 1 | 85 | 1 |
| A25 | 823756 | 838085.2 | 4.9 | 7.5 | 123 | 1 | 82 | 1 | 123 | 2 | 85 | 1 |
| A26 | 823040.62 | 838098.6 | 4.4 | 7.5 | 122 | 1 | 82 | 0 | 122 | 1 | 85 | 0 |
| A27 | 823465.59 | 837089.9 | 4.5 | 7.5 | 122 | 0 | 82 | 0 | 122 | 3 | 85 | 1 |
| A28 | 823286.57 | 837864.2 | 4.3 | 7.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A29 | 823279.17 | 837826.6 | 4.3 | 7.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A30 | 823293.2 | 837534.5 | 4.5 | 7.5 | 122 | 1 | 82 | 1 | 122 | 1 | 85 | 1 |
| A31 | 823393.53 | 837959.7 | 3.9 | 7.5 | 122 | 3 | 82 | 2 | 122 | 3 | 85 | 2 |
| A32 | 823353.02 | 837069.1 | 4.5 | 7.5 | 122 | 0 | 82 | 0 | 122 | 3 | 85 | 1 |
| A33 | 823439.27 | 837932.1 | 3.9 | 7.5 | 122 | 4 | 82 | 2 | 122 | 4 | 85 | 2 |
| A34 | 823424.53 | 838140.2 | 5.2 | 7.5 | 122 | 1 | 82 | 1 | 122 | 1 | 85 | 1 |
| A35 | 823581.4 | 838166.3 | 5 | 7.5 | 122 | 3 | 82 | 1 | 122 | 3 | 85 | 2 |
| A36 | 823703.1 | 837968.5 | 3.5 | 7.5 | 123 | 3 | 82 | 2 | 123 | 3 | 85 | 2 |
| A1Pa | 823687.9 | 837719 | 3 | 7.5 | 122 | 2 | 82 | 1 | 122 | 2 | 85 | 1 |
| A2Pa | 823545.2 | 837421.1 | 3 | 7.5 | 122 | 1 | 82 | 0 | 123 | 2 | 85 | 1 |
| A3Pa | 823454.7 | 837785.1 | 4 | 7.5 | 122 | 3 | 82 | 2 | 122 | 3 | 85 | 2 |
| A4Pa | 823304.9 | 837427.1 | 4 | 7.5 | 122 | 1 | 82 | 1 | 122 | 2 | 85 | 1 |
| A5Pa | 823602.1 | 837795.8 | 4 | 7.5 | 122 | 1 | 82 | 0 | ** | ** | ** | ** |
| V01 | 823571.7 | 837355.7 | 3 | 7.5 | 122 | 1 | 82 | 0 | 123 | 1 | 85 | 1 |
| V02 | 823780.1 | 837738.5 | 2.4 | 7.5 | 122 | 1 | 82 | 1 | 122 | 1 | 85 | 1 |
| V03 | 823524.7 | 837232 | 3 | 7.5 | 122 | 1 | 82 | 0 | 122 | 2 | 85 | 1 |
| V04 | 823384.5 | 837124.2 | 4.8 | 7.5 | 122 | 0 | 82 | 0 | 122 | 2 | 85 | 1 |
| Max. RSP Level, ug/m³ | | | | | 125 | 10 | 82 | 6 | 125 | 11 | 86 | 6 |
| Relevant AQO Criteria, ug/m³ | | | | | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |
| Compliance with AQO? | | | | | - | - | Yes | Yes | - | - | Yes | Yes |

Remark: * The above results have included the background level extracted from the PATH Output (year 2015). The hour-by-hour background contribution is estimated using output of PATH model, and added hour-by-hour to the Project contribution in order to calculate the daily average total RSP levels.

** Planned ASR within the planned "Kam Pok Road Site" Project, which is not applicable in this cumulative impact assessment.

| ASR | X | Y | Z | Height above ground | 1st Highest Daily FSP (With Bkg. Level) * & ** | | 10th Highest Daily FSP (With Bkg. Level) * & ** | | 1st Highest Daily FSP (With Bkg. Level) * & ** | | 10th Highest Daily FSP (With Bkg. Level) * & ** | |
|-------------------------------------|-----------|----------|-----|---------------------|--|--------------------|---|--------------------|--|--------------------|---|--------------------|
| | | | | | With Bkg. Level | Without Bkg. Level | With Bkg. Level | Without Bkg. Level | With Bkg. Level | Without Bkg. Level | With Bkg. Level | Without Bkg. Level |
| A05 | 823287.12 | 837673.9 | 4.2 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A05A | 823269.63 | 837644.5 | 4.2 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A05B | 823308.73 | 837726.2 | 4.2 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A06 | 823405 | 837870 | 4.2 | 7.5 | 91 | 1 | 61 | 1 | 91 | 1 | 64 | 1 |
| A06A | 823365.92 | 837883.6 | 4.2 | 7.5 | 91 | 1 | 61 | 0 | 91 | 1 | 64 | 0 |
| A07 | 823788.62 | 837882.5 | 3.1 | 7.5 | 92 | 1 | 61 | 0 | 92 | 1 | 64 | 1 |
| A08 | 823679.12 | 837571.7 | 2.3 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A09 | 823717.31 | 837567 | 3.5 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A10 | 823227.62 | 837343.9 | 4.4 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A10A | 823188.8 | 837327.3 | 4.4 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A11 | 823382.12 | 837043.2 | 4.5 | 7.5 | 91 | 0 | 61 | 0 | 91 | 1 | 64 | 0 |
| A12 | 823509.19 | 837017.6 | 6.5 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A13 | 823171.38 | 837105 | 4.6 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A14 | 823175.5 | 837030.5 | 4.4 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A15 | 823271.81 | 836947.2 | 4.1 | 7.5 | 91 | 0 | 61 | 0 | 91 | 1 | 64 | 0 |
| A16 | 823496 | 837908.2 | 4.2 | 7.5 | 91 | 1 | 61 | 1 | 91 | 1 | 64 | 1 |
| A16A | 823470.21 | 837871.6 | 4.2 | 7.5 | 91 | 1 | 61 | 1 | 91 | 1 | 64 | 1 |
| A17 | 823500.62 | 838152.4 | 5.7 | 7.5 | 91 | 1 | 61 | 0 | 91 | 1 | 64 | 0 |
| A18 | 823725.62 | 838015.9 | 3.5 | 7.5 | 92 | 1 | 61 | 0 | 92 | 1 | 64 | 1 |
| A19 | 823749.5 | 837459.6 | 3.3 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A20 | 823745.38 | 837355.3 | 4.2 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A21 | 823713.88 | 837274 | 4.2 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A22 | 823645.12 | 837066.1 | 3.5 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A23 | 823920.62 | 837886.7 | 3.6 | 7.5 | 92 | 0 | 61 | 0 | 92 | 0 | 64 | 0 |
| A24 | 823927.69 | 837923.6 | 3.5 | 7.5 | 92 | 0 | 61 | 0 | 92 | 0 | 64 | 0 |
| A25 | 823756 | 838085.2 | 4.9 | 7.5 | 92 | 0 | 61 | 0 | 92 | 0 | 64 | 0 |
| A26 | 823040.62 | 838098.6 | 4.4 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A27 | 823465.59 | 837089.9 | 4.5 | 7.5 | 91 | 0 | 61 | 0 | 91 | 1 | 64 | 0 |
| A28 | 823286.57 | 837864.2 | 4.3 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A29 | 823279.17 | 837826.6 | 4.3 | 7.5 | 91 | 1 | 61 | 0 | 91 | 1 | 64 | 0 |
| A30 | 823293.2 | 837534.5 | 4.5 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A31 | 823393.53 | 837959.7 | 3.9 | 7.5 | 91 | 1 | 61 | 0 | 91 | 1 | 64 | 0 |
| A32 | 823353.02 | 837069.1 | 4.5 | 7.5 | 91 | 0 | 61 | 0 | 91 | 1 | 64 | 0 |
| A33 | 823439.27 | 837932.1 | 3.9 | 7.5 | 91 | 1 | 61 | 0 | 91 | 1 | 64 | 0 |
| A34 | 823424.53 | 838140.2 | 5.2 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| A35 | 823581.4 | 838166.3 | 5 | 7.5 | 91 | 1 | 61 | 0 | 91 | 1 | 64 | 0 |
| A36 | 823703.1 | 837968.5 | 3.5 | 7.5 | 92 | 1 | 61 | 1 | 92 | 1 | 64 | 1 |
| A1Pa | 823687.9 | 837719 | 3 | 7.5 | 91 | 1 | 61 | 0 | 91 | 1 | 64 | 0 |
| A2Pa | 823545.2 | 837421.1 | 3 | 7.5 | 91 | 0 | 61 | 0 | 92 | 1 | 64 | 0 |
| A3Pa | 823454.7 | 837785.1 | 4 | 7.5 | 91 | 1 | 61 | 1 | 91 | 1 | 64 | 1 |
| A4Pa | 823304.9 | 837427.1 | 4 | 7.5 | 91 | 0 | 61 | 0 | 91 | 1 | 64 | 0 |
| A5Pa | 823602.1 | 837795.8 | 4 | 7.5 | 91 | 0 | 61 | 0 | *** | *** | *** | *** |
| V01 | 823571.7 | 837355.7 | 3 | 7.5 | 91 | 0 | 61 | 0 | 92 | 0 | 64 | 0 |
| V02 | 823780.1 | 837738.5 | 2.4 | 7.5 | 91 | 0 | 61 | 0 | 91 | 0 | 64 | 0 |
| V03 | 823524.7 | 837232 | 3 | 7.5 | 91 | 0 | 61 | 0 | 91 | 1 | 64 | 0 |
| V04 | 823384.5 | 837124.2 | 4.8 | 7.5 | 91 | 0 | 61 | 0 | 91 | 1 | 64 | 0 |
| Max. FSP Level, ug/m3 | | | | | 92 | 3 | 62 | 2 | 92 | 3 | 64 | 2 |
| Relevant AQO Criteria, ug/m3 | | | | | 75 | 75 | 75 | 75 | 75 | 75 | 75 | 75 |
| Compliance with AQO? | | | | | - | - | Yes | Yes | - | - | Yes | Yes |

Remark: * The above results have included the background level extracted from the PATH Output (year 2015). The hour-by-hour background contribution is estimated using output of PATH model, and added hour-by-hour to the Project contribution in order to calculate the daily average total RSP levels.

** The FSP concentrations are calculated based on the predicted RSP concentrations by applying a FSP/RSP ratio of 0.3 according to the USEPA AP-42 reference document. Please refer to Appendix 3-10 for the justification of FSP/RSP ratio.

*** Planned ASR within the planned 'Kam Pok Road Site' Project, which is not applicable in this cumulative impact assessment.

Annex 3-4 Summary Table of Cumulative Maximum Annual Average RSP Level (Mitigated Scenario)

| ASR | X | Y | Z | Height above ground | Due to this Project Only (Filling/ excavation) (extracted from Appendix 3-7-5 in Appendix 3-7 of this EIA report) | | Cumulative Levels Due to Concurrent Construction with planned "Kam Pok Road Site" Project | |
|------|--------|--------|-----|---------------------|---|-------------------------------|---|-------------------------------|
| | | | | | Annual Average RSP (With Bkg. Level) * | Annual Average RSP (W/o Bkg.) | Annual Average RSP (With Bkg. Level) * | Annual Average RSP (W/o Bkg.) |
| | | | | | With Bkg. Level | Without Bkg. Level | With Bkg. Level | Without Bkg. Level |
| A01 | 823101 | 837242 | 4.4 | 1.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A01A | 823124 | 837181 | 4.4 | 1.5 | 43.3 | 0.0 | 43.4 | 0.2 |
| A02 | 823093 | 837314 | 4.4 | 1.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A02A | 823120 | 837359 | 4.4 | 1.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A03 | 823261 | 837374 | 4.4 | 1.5 | 43.3 | 0.1 | 43.5 | 0.2 |
| A04 | 823277 | 837456 | 4.3 | 1.5 | 43.4 | 0.1 | 43.4 | 0.2 |
| A05 | 823287 | 837674 | 4.2 | 1.5 | 43.4 | 0.2 | 43.4 | 0.2 |
| A05A | 823270 | 837645 | 4.2 | 1.5 | 43.4 | 0.2 | 43.4 | 0.2 |
| A05B | 823309 | 837726 | 4.2 | 1.5 | 43.5 | 0.2 | 43.5 | 0.2 |
| A06 | 823405 | 837870 | 4.2 | 1.5 | 43.7 | 0.5 | 43.8 | 0.5 |
| A06A | 823366 | 837884 | 4.2 | 1.5 | 43.6 | 0.4 | 43.6 | 0.4 |
| A07 | 823789 | 837883 | 3.1 | 1.5 | 43.6 | 0.4 | 43.7 | 0.4 |
| A08 | 823679 | 837572 | 2.3 | 1.5 | 43.3 | 0.1 | 43.3 | 0.1 |
| A09 | 823717 | 837567 | 3.5 | 1.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A10 | 823228 | 837344 | 4.4 | 1.5 | 43.3 | 0.1 | 43.4 | 0.2 |
| A10A | 823189 | 837327 | 4.4 | 1.5 | 43.3 | 0.1 | 43.4 | 0.2 |
| A11 | 823382 | 837043 | 4.5 | 1.5 | 43.3 | 0.0 | 43.4 | 0.2 |
| A12 | 823509 | 837018 | 6.5 | 1.5 | 43.3 | 0.0 | 43.3 | 0.0 |
| A13 | 823171 | 837105 | 4.6 | 1.5 | 43.3 | 0.0 | 43.4 | 0.2 |
| A14 | 823176 | 837031 | 4.4 | 1.5 | 43.3 | 0.0 | 43.4 | 0.1 |
| A15 | 823272 | 836947 | 4.1 | 1.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A16 | 823496 | 837908 | 4.2 | 1.5 | 44.3 | 1.1 | 44.4 | 1.1 |
| A16A | 823470 | 837872 | 4.2 | 1.5 | 44.2 | 1.0 | 44.3 | 1.0 |
| A17 | 823501 | 838152 | 5.7 | 1.5 | 43.5 | 0.2 | 43.5 | 0.2 |
| A18 | 823726 | 838016 | 3.5 | 1.5 | 43.7 | 0.5 | 43.7 | 0.5 |
| A19 | 823750 | 837460 | 3.3 | 1.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A20 | 823745 | 837355 | 4.2 | 1.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A21 | 823714 | 837274 | 4.2 | 1.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A22 | 823645 | 837066 | 3.5 | 1.5 | 43.3 | 0.0 | 43.3 | 0.0 |
| A23 | 823921 | 837887 | 3.6 | 1.5 | 43.4 | 0.1 | 43.4 | 0.1 |
| A24 | 823928 | 837924 | 3.5 | 1.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A25 | 823756 | 838085 | 4.9 | 1.5 | 43.5 | 0.3 | 43.5 | 0.3 |
| A26 | 823041 | 838099 | 4.4 | 1.5 | 43.3 | 0.1 | 43.3 | 0.1 |
| A27 | 823466 | 837090 | 4.5 | 1.5 | 43.3 | 0.0 | 43.4 | 0.2 |
| A28 | 823287 | 837864 | 4.3 | 1.5 | 43.5 | 0.2 | 43.5 | 0.2 |
| A29 | 823279 | 837827 | 4.3 | 1.5 | 43.5 | 0.2 | 43.5 | 0.2 |
| A30 | 823293 | 837535 | 4.5 | 1.5 | 43.4 | 0.1 | 43.4 | 0.2 |
| A31 | 823394 | 837960 | 3.9 | 1.5 | 43.6 | 0.4 | 43.7 | 0.4 |
| A32 | 823353 | 837069 | 4.5 | 1.5 | 43.3 | 0.0 | 43.5 | 0.2 |
| A33 | 823439 | 837932 | 3.9 | 1.5 | 43.9 | 0.6 | 43.9 | 0.7 |
| A34 | 823425 | 838140 | 5.2 | 1.5 | 43.4 | 0.1 | 43.4 | 0.1 |
| A35 | 823581 | 838166 | 5 | 1.5 | 43.6 | 0.3 | 43.6 | 0.3 |
| A36 | 823703 | 837968 | 3.5 | 1.5 | 44.0 | 0.8 | 44.1 | 0.8 |
| A1Pa | 823688 | 837719 | 3 | 1.5 | 43.5 | 0.2 | 43.5 | 0.3 |
| A2Pa | 823545 | 837421 | 3 | 1.5 | 43.3 | 0.1 | 43.6 | 0.3 |
| A3Pa | 823455 | 837785 | 4 | 1.5 | 43.9 | 0.7 | 44.0 | 0.7 |
| A4Pa | 823305 | 837427 | 4 | 1.5 | 43.3 | 0.1 | 43.5 | 0.2 |
| A5Pa | 823602 | 837796 | 4 | 1.5 | 43.3 | 0.1 | ** | ** |
| V01 | 823572 | 837356 | 3 | 1.5 | 43.3 | 0.0 | 43.5 | 0.3 |
| V02 | 823780 | 837738 | 2.4 | 1.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| V03 | 823525 | 837232 | 3 | 1.5 | 43.3 | 0.0 | 43.6 | 0.3 |
| V04 | 823385 | 837124 | 4.8 | 1.5 | 43.3 | 0.0 | 43.7 | 0.4 |
| A01 | 823101 | 837242 | 4.4 | 4.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A01A | 823124 | 837181 | 4.4 | 4.5 | 43.3 | 0.0 | 43.4 | 0.1 |
| A02 | 823093 | 837314 | 4.4 | 4.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A02A | 823120 | 837359 | 4.4 | 4.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A03 | 823261 | 837374 | 4.4 | 4.5 | 43.3 | 0.1 | 43.4 | 0.2 |
| A04 | 823277 | 837456 | 4.3 | 4.5 | 43.4 | 0.1 | 43.4 | 0.2 |
| A05 | 823287 | 837674 | 4.2 | 4.5 | 43.4 | 0.2 | 43.4 | 0.2 |
| A05A | 823270 | 837645 | 4.2 | 4.5 | 43.4 | 0.1 | 43.4 | 0.2 |
| A05B | 823309 | 837726 | 4.2 | 4.5 | 43.4 | 0.2 | 43.5 | 0.2 |
| A06 | 823405 | 837870 | 4.2 | 4.5 | 43.6 | 0.4 | 43.7 | 0.4 |
| A06A | 823366 | 837884 | 4.2 | 4.5 | 43.6 | 0.3 | 43.6 | 0.3 |
| A07 | 823789 | 837883 | 3.1 | 4.5 | 43.5 | 0.3 | 43.6 | 0.3 |
| A08 | 823679 | 837572 | 2.3 | 4.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A09 | 823717 | 837567 | 3.5 | 4.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A10 | 823228 | 837344 | 4.4 | 4.5 | 43.3 | 0.1 | 43.4 | 0.2 |
| A10A | 823189 | 837327 | 4.4 | 4.5 | 43.3 | 0.1 | 43.4 | 0.2 |
| A11 | 823382 | 837043 | 4.5 | 4.5 | 43.3 | 0.0 | 43.4 | 0.1 |
| A12 | 823509 | 837018 | 6.5 | 4.5 | 43.3 | 0.0 | 43.3 | 0.0 |
| A13 | 823171 | 837105 | 4.6 | 4.5 | 43.3 | 0.0 | 43.4 | 0.2 |
| A14 | 823176 | 837031 | 4.4 | 4.5 | 43.3 | 0.0 | 43.4 | 0.1 |
| A15 | 823272 | 836947 | 4.1 | 4.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A16 | 823496 | 837908 | 4.2 | 4.5 | 43.9 | 0.6 | 43.9 | 0.7 |
| A16A | 823470 | 837872 | 4.2 | 4.5 | 43.8 | 0.6 | 43.9 | 0.6 |
| A17 | 823501 | 838152 | 5.7 | 4.5 | 43.4 | 0.2 | 43.4 | 0.2 |
| A18 | 823726 | 838016 | 3.5 | 4.5 | 43.6 | 0.4 | 43.7 | 0.4 |
| A19 | 823750 | 837460 | 3.3 | 4.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A20 | 823745 | 837355 | 4.2 | 4.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A21 | 823714 | 837274 | 4.2 | 4.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A22 | 823645 | 837066 | 3.5 | 4.5 | 43.3 | 0.0 | 43.3 | 0.0 |
| A23 | 823921 | 837887 | 3.6 | 4.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A24 | 823928 | 837924 | 3.5 | 4.5 | 43.3 | 0.1 | 43.3 | 0.1 |
| A25 | 823756 | 838085 | 4.9 | 4.5 | 43.5 | 0.2 | 43.5 | 0.3 |
| A26 | 823041 | 838099 | 4.4 | 4.5 | 43.3 | 0.1 | 43.3 | 0.1 |
| A27 | 823466 | 837090 | 4.5 | 4.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A28 | 823287 | 837864 | 4.3 | 4.5 | 43.4 | 0.2 | 43.5 | 0.2 |
| A29 | 823279 | 837827 | 4.3 | 4.5 | 43.4 | 0.2 | 43.5 | 0.2 |
| A30 | 823293 | 837535 | 4.5 | 4.5 | 43.4 | 0.1 | 43.4 | 0.2 |
| A31 | 823394 | 837960 | 3.9 | 4.5 | 43.6 | 0.3 | 43.6 | 0.3 |
| A32 | 823353 | 837069 | 4.5 | 4.5 | 43.3 | 0.0 | 43.4 | 0.2 |
| A33 | 823439 | 837932 | 3.9 | 4.5 | 43.7 | 0.4 | 43.7 | 0.5 |
| A34 | 823425 | 838140 | 5.2 | 4.5 | 43.4 | 0.1 | 43.4 | 0.1 |
| A35 | 823581 | 838166 | 5 | 4.5 | 43.5 | 0.3 | 43.5 | 0.3 |
| A36 | 823703 | 837968 | 3.5 | 4.5 | 43.8 | 0.6 | 43.8 | 0.6 |
| A1Pa | 823688 | 837719 | 3 | 4.5 | 43.4 | 0.2 | 43.5 | 0.2 |
| A2Pa | 823545 | 837421 | 3 | 4.5 | 43.3 | 0.1 | 43.5 | 0.3 |
| A3Pa | 823455 | 837785 | 4 | 4.5 | 43.7 | 0.5 | 43.8 | 0.5 |
| A4Pa | 823305 | 837427 | 4 | 4.5 | 43.3 | 0.1 | 43.4 | 0.2 |
| A5Pa | 823602 | 837796 | 4 | 4.5 | 43.3 | 0.1 | ** | ** |
| V01 | 823572 | 837356 | 3 | 4.5 | 43.3 | 0.0 | 43.5 | 0.2 |

| ASR | X | Y | Z | Height above ground | Annual Average RSP (With Bkg. Level) * | | Annual Average RSP (With Bkg. Level) * | |
|-------------------------------------|--------|--------|-----|---------------------|--|--------------------|--|--------------------|
| | | | | | With Bkg. Level | Without Bkg. Level | With Bkg. Level | Without Bkg. Level |
| V02 | 823780 | 837738 | 2.4 | 4.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| V03 | 823525 | 837232 | 3 | 4.5 | 43.3 | 0.0 | 43.5 | 0.2 |
| V04 | 823385 | 837124 | 4.8 | 4.5 | 43.3 | 0.0 | 43.5 | 0.2 |
| A01 | 823101 | 837242 | 4.4 | 7.5 | 43.3 | 0.0 | 43.4 | 0.1 |
| A01A | 823124 | 837181 | 4.4 | 7.5 | 43.3 | 0.0 | 43.4 | 0.1 |
| A02 | 823093 | 837314 | 4.4 | 7.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A02A | 823120 | 837359 | 4.4 | 7.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A03 | 823261 | 837374 | 4.4 | 7.5 | 43.3 | 0.1 | 43.4 | 0.2 |
| A04 | 823277 | 837456 | 4.3 | 7.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A05 | 823287 | 837674 | 4.2 | 7.5 | 43.4 | 0.1 | 43.4 | 0.2 |
| A05A | 823270 | 837645 | 4.2 | 7.5 | 43.4 | 0.1 | 43.4 | 0.2 |
| A05B | 823309 | 837726 | 4.2 | 7.5 | 43.4 | 0.2 | 43.4 | 0.2 |
| A06 | 823405 | 837870 | 4.2 | 7.5 | 43.5 | 0.3 | 43.5 | 0.3 |
| A06A | 823366 | 837884 | 4.2 | 7.5 | 43.5 | 0.2 | 43.5 | 0.2 |
| A07 | 823789 | 837883 | 3.1 | 7.5 | 43.4 | 0.2 | 43.5 | 0.2 |
| A08 | 823679 | 837572 | 2.3 | 7.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A09 | 823717 | 837567 | 3.5 | 7.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A10 | 823228 | 837344 | 4.4 | 7.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A10A | 823189 | 837327 | 4.4 | 7.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A11 | 823382 | 837043 | 4.5 | 7.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A12 | 823509 | 837018 | 6.5 | 7.5 | 43.3 | 0.0 | 43.3 | 0.0 |
| A13 | 823171 | 837105 | 4.6 | 7.5 | 43.3 | 0.0 | 43.4 | 0.1 |
| A14 | 823176 | 837031 | 4.4 | 7.5 | 43.3 | 0.0 | 43.4 | 0.1 |
| A15 | 823272 | 836947 | 4.1 | 7.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A16 | 823496 | 837908 | 4.2 | 7.5 | 43.6 | 0.4 | 43.6 | 0.4 |
| A16A | 823470 | 837872 | 4.2 | 7.5 | 43.6 | 0.4 | 43.6 | 0.4 |
| A17 | 823501 | 838152 | 5.7 | 7.5 | 43.4 | 0.1 | 43.4 | 0.2 |
| A18 | 823726 | 838016 | 3.5 | 7.5 | 43.5 | 0.3 | 43.6 | 0.3 |
| A19 | 823750 | 837460 | 3.3 | 7.5 | 43.3 | 0.0 | 43.3 | 0.0 |
| A20 | 823745 | 837355 | 4.2 | 7.5 | 43.3 | 0.0 | 43.3 | 0.0 |
| A21 | 823714 | 837274 | 4.2 | 7.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A22 | 823645 | 837066 | 3.5 | 7.5 | 43.3 | 0.0 | 43.3 | 0.0 |
| A23 | 823921 | 837887 | 3.6 | 7.5 | 43.3 | 0.1 | 43.4 | 0.1 |
| A24 | 823928 | 837924 | 3.5 | 7.5 | 43.3 | 0.1 | 43.3 | 0.1 |
| A25 | 823756 | 838085 | 4.9 | 7.5 | 43.4 | 0.2 | 43.5 | 0.2 |
| A26 | 823041 | 838099 | 4.4 | 7.5 | 43.3 | 0.1 | 43.3 | 0.1 |
| A27 | 823466 | 837090 | 4.5 | 7.5 | 43.3 | 0.0 | 43.3 | 0.1 |
| A28 | 823287 | 837864 | 4.3 | 7.5 | 43.4 | 0.2 | 43.4 | 0.2 |
| A29 | 823279 | 837827 | 4.3 | 7.5 | 43.4 | 0.2 | 43.4 | 0.2 |
| A30 | 823293 | 837535 | 4.5 | 7.5 | 43.4 | 0.1 | 43.4 | 0.2 |
| A31 | 823394 | 837960 | 3.9 | 7.5 | 43.5 | 0.2 | 43.5 | 0.2 |
| A32 | 823353 | 837069 | 4.5 | 7.5 | 43.3 | 0.0 | 43.4 | 0.1 |
| A33 | 823439 | 837932 | 3.9 | 7.5 | 43.5 | 0.3 | 43.5 | 0.3 |
| A34 | 823425 | 838140 | 5.2 | 7.5 | 43.3 | 0.1 | 43.3 | 0.1 |
| A35 | 823581 | 838166 | 5 | 7.5 | 43.5 | 0.2 | 43.5 | 0.2 |
| A36 | 823703 | 837968 | 3.5 | 7.5 | 43.6 | 0.4 | 43.6 | 0.4 |
| A1Pa | 823688 | 837719 | 3 | 7.5 | 43.4 | 0.1 | 43.4 | 0.2 |
| A2Pa | 823545 | 837421 | 3 | 7.5 | 43.3 | 0.1 | 43.5 | 0.2 |
| A3Pa | 823455 | 837785 | 4 | 7.5 | 43.6 | 0.3 | 43.6 | 0.4 |
| A4Pa | 823305 | 837427 | 4 | 7.5 | 43.3 | 0.1 | 43.4 | 0.2 |
| A5Pa | 823602 | 837796 | 4 | 7.5 | 43.3 | 0.1 | ** | ** |
| V01 | 823572 | 837356 | 3 | 7.5 | 43.3 | 0.0 | 43.4 | 0.2 |
| V02 | 823780 | 837738 | 2.4 | 7.5 | 43.3 | 0.1 | 43.3 | 0.1 |
| V03 | 823525 | 837232 | 3 | 7.5 | 43.3 | 0.0 | 43.4 | 0.1 |
| V04 | 823385 | 837124 | 4.8 | 7.5 | 43.3 | 0.0 | 43.4 | 0.1 |
| Max. RSP Level, ug/m3 | | | | | 44.3 | 1.1 | 44.4 | 1.1 |
| Relevant AQO Criteria, ug/m3 | | | | | 50 | 50 | 50 | 50 |
| Compliance with AQO? | | | | | Yes | Yes | Yes | Yes |

Remark: * The above results have included the background level extracted from the PATH Output (year 2015). The hour-by-hour background contribution is estimated using output of PATH model, and added hour-by-hour to the Project contribution in order to calculate the annual average total RSP levels.

** Plann** Planned ASR within the planned 'Kam Pok Road Site' Project, which is not applicable in this cumulative impact assessment.

Annex 3-5 Summary Table of Cumulative Maximum Annual Average FSP Level (Mitigated Scenario)

| ASR | X | Y | Z | Height above ground | Due to this Project Only (Filling/ excavation) (extracted from Appendix 3-7-5 in Appendix 3-7 of this EIA report) | | Cumulative Levels Due to Concurrent Construction with planned "Kam Pok Road Site" Project | |
|------|--------|--------|-----|---------------------|---|--------------------|---|--------------------|
| | | | | | Annual Average FSP (With Bkg. Level) * & ** | | Annual Average FSP (With Bkg. Level) * & ** | |
| | | | | | With Bkg. Level | Without Bkg. Level | With Bkg. Level | Without Bkg. Level |
| A01 | 823101 | 837242 | 4.4 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A01A | 823124 | 837181 | 4.4 | 1.5 | 30.7 | 0.0 | 30.8 | 0.0 |
| A02 | 823093 | 837314 | 4.4 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A02A | 823120 | 837359 | 4.4 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A03 | 823261 | 837374 | 4.4 | 1.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A04 | 823277 | 837456 | 4.3 | 1.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A05 | 823287 | 837674 | 4.2 | 1.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A05A | 823270 | 837645 | 4.2 | 1.5 | 30.8 | 0.0 | 30.8 | 0.1 |
| A05B | 823309 | 837726 | 4.2 | 1.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A06 | 823405 | 837870 | 4.2 | 1.5 | 30.9 | 0.2 | 30.9 | 0.2 |
| A06A | 823366 | 837884 | 4.2 | 1.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A07 | 823789 | 837883 | 3.1 | 1.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A08 | 823679 | 837572 | 2.3 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A09 | 823717 | 837567 | 3.5 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A10 | 823228 | 837344 | 4.4 | 1.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A10A | 823189 | 837327 | 4.4 | 1.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A11 | 823382 | 837043 | 4.5 | 1.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A12 | 823509 | 837018 | 6.5 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A13 | 823171 | 837105 | 4.6 | 1.5 | 30.7 | 0.0 | 30.8 | 0.0 |
| A14 | 823176 | 837031 | 4.4 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A15 | 823272 | 836947 | 4.1 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A16 | 823496 | 837908 | 4.2 | 1.5 | 31.0 | 0.3 | 31.0 | 0.3 |
| A16A | 823470 | 837872 | 4.2 | 1.5 | 31.0 | 0.3 | 31.0 | 0.3 |
| A17 | 823501 | 838152 | 5.7 | 1.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A18 | 823726 | 838016 | 3.5 | 1.5 | 30.8 | 0.1 | 30.9 | 0.1 |
| A19 | 823750 | 837460 | 3.3 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A20 | 823745 | 837355 | 4.2 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A21 | 823714 | 837274 | 4.2 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A22 | 823645 | 837066 | 3.5 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A23 | 823921 | 837887 | 3.6 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A24 | 823928 | 837924 | 3.5 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A25 | 823756 | 838085 | 4.9 | 1.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A26 | 823041 | 838099 | 4.4 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A27 | 823466 | 837090 | 4.5 | 1.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A28 | 823287 | 837864 | 4.3 | 1.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A29 | 823279 | 837827 | 4.3 | 1.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A30 | 823293 | 837535 | 4.5 | 1.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A31 | 823394 | 837960 | 3.9 | 1.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A32 | 823353 | 837069 | 4.5 | 1.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A33 | 823439 | 837932 | 3.9 | 1.5 | 30.9 | 0.2 | 30.9 | 0.2 |
| A34 | 823425 | 838140 | 5.2 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A35 | 823581 | 838166 | 5 | 1.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A36 | 823703 | 837968 | 3.5 | 1.5 | 30.9 | 0.2 | 30.9 | 0.2 |
| A1Pa | 823688 | 837719 | 3 | 1.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A2Pa | 823545 | 837421 | 3 | 1.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A3Pa | 823455 | 837785 | 4 | 1.5 | 30.9 | 0.2 | 30.9 | 0.2 |
| A4Pa | 823305 | 837427 | 4 | 1.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A5Pa | 823602 | 837796 | 4 | 1.5 | 30.7 | 0.0 | *** | *** |
| V01 | 823572 | 837356 | 3 | 1.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| V02 | 823780 | 837738 | 2.4 | 1.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| V03 | 823525 | 837232 | 3 | 1.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| V04 | 823385 | 837124 | 4.8 | 1.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A01 | 823101 | 837242 | 4.4 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A01A | 823124 | 837181 | 4.4 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A02 | 823093 | 837314 | 4.4 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A02A | 823120 | 837359 | 4.4 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A03 | 823261 | 837374 | 4.4 | 4.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A04 | 823277 | 837456 | 4.3 | 4.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A05 | 823287 | 837674 | 4.2 | 4.5 | 30.8 | 0.0 | 30.8 | 0.1 |
| A05A | 823270 | 837645 | 4.2 | 4.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A05B | 823309 | 837726 | 4.2 | 4.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A06 | 823405 | 837870 | 4.2 | 4.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A06A | 823366 | 837884 | 4.2 | 4.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A07 | 823789 | 837883 | 3.1 | 4.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A08 | 823679 | 837572 | 2.3 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A09 | 823717 | 837567 | 3.5 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A10 | 823228 | 837344 | 4.4 | 4.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A10A | 823189 | 837327 | 4.4 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A11 | 823382 | 837043 | 4.5 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A12 | 823509 | 837018 | 6.5 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A13 | 823171 | 837105 | 4.6 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A14 | 823176 | 837031 | 4.4 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A15 | 823272 | 836947 | 4.1 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A16 | 823496 | 837908 | 4.2 | 4.5 | 30.9 | 0.2 | 30.9 | 0.2 |
| A16A | 823470 | 837872 | 4.2 | 4.5 | 30.9 | 0.2 | 30.9 | 0.2 |
| A17 | 823501 | 838152 | 5.7 | 4.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A18 | 823726 | 838016 | 3.5 | 4.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A19 | 823750 | 837460 | 3.3 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A20 | 823745 | 837355 | 4.2 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A21 | 823714 | 837274 | 4.2 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A22 | 823645 | 837066 | 3.5 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A23 | 823921 | 837887 | 3.6 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A24 | 823928 | 837924 | 3.5 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A25 | 823756 | 838085 | 4.9 | 4.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A26 | 823041 | 838099 | 4.4 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A27 | 823466 | 837090 | 4.5 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A28 | 823287 | 837864 | 4.3 | 4.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A29 | 823279 | 837827 | 4.3 | 4.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A30 | 823293 | 837535 | 4.5 | 4.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A31 | 823394 | 837960 | 3.9 | 4.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A32 | 823353 | 837069 | 4.5 | 4.5 | 30.7 | 0.0 | 30.8 | 0.0 |
| A33 | 823439 | 837932 | 3.9 | 4.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A34 | 823425 | 838140 | 5.2 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A35 | 823581 | 838166 | 5 | 4.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A36 | 823703 | 837968 | 3.5 | 4.5 | 30.9 | 0.2 | 30.9 | 0.2 |
| A1Pa | 823688 | 837719 | 3 | 4.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A2Pa | 823545 | 837421 | 3 | 4.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A3Pa | 823455 | 837785 | 4 | 4.5 | 30.8 | 0.1 | 30.9 | 0.2 |
| A4Pa | 823305 | 837427 | 4 | 4.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A5Pa | 823602 | 837796 | 4 | 4.5 | 30.7 | 0.0 | *** | *** |

| ASR | X | Y | Z | Height above ground | Annual Average FSP (With Bkg. Level) * & ** | | Annual Average FSP (W/o Bkg.) ** | |
|-------------------------------------|--------|--------|-----|---------------------|---|--------------------|----------------------------------|--------------------|
| | | | | | With Bkg. Level | Without Bkg. Level | With Bkg. Level | Without Bkg. Level |
| V01 | 823572 | 837356 | 3 | 4.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| V02 | 823780 | 837738 | 2.4 | 4.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| V03 | 823525 | 837232 | 3 | 4.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| V04 | 823385 | 837124 | 4.8 | 4.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A01 | 823101 | 837242 | 4.4 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A01A | 823124 | 837181 | 4.4 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A02 | 823093 | 837314 | 4.4 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A02A | 823120 | 837359 | 4.4 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A03 | 823261 | 837374 | 4.4 | 7.5 | 30.7 | 0.0 | 30.8 | 0.0 |
| A04 | 823277 | 837456 | 4.3 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A05 | 823287 | 837674 | 4.2 | 7.5 | 30.7 | 0.0 | 30.8 | 0.0 |
| A05A | 823270 | 837645 | 4.2 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A05B | 823309 | 837726 | 4.2 | 7.5 | 30.8 | 0.0 | 30.8 | 0.1 |
| A06 | 823405 | 837870 | 4.2 | 7.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A06A | 823366 | 837884 | 4.2 | 7.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A07 | 823789 | 837883 | 3.1 | 7.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A08 | 823679 | 837572 | 2.3 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A09 | 823717 | 837567 | 3.5 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A10 | 823228 | 837344 | 4.4 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A10A | 823189 | 837327 | 4.4 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A11 | 823382 | 837043 | 4.5 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A12 | 823509 | 837018 | 6.5 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A13 | 823171 | 837105 | 4.6 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A14 | 823176 | 837031 | 4.4 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A15 | 823272 | 836947 | 4.1 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A16 | 823496 | 837908 | 4.2 | 7.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A16A | 823470 | 837872 | 4.2 | 7.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A17 | 823501 | 838152 | 5.7 | 7.5 | 30.7 | 0.0 | 30.8 | 0.0 |
| A18 | 823726 | 838016 | 3.5 | 7.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A19 | 823750 | 837460 | 3.3 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A20 | 823745 | 837355 | 4.2 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A21 | 823714 | 837274 | 4.2 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A22 | 823645 | 837066 | 3.5 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A23 | 823921 | 837887 | 3.6 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A24 | 823928 | 837924 | 3.5 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A25 | 823756 | 838085 | 4.9 | 7.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A26 | 823041 | 838099 | 4.4 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A27 | 823466 | 837090 | 4.5 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A28 | 823287 | 837864 | 4.3 | 7.5 | 30.8 | 0.0 | 30.8 | 0.1 |
| A29 | 823279 | 837827 | 4.3 | 7.5 | 30.8 | 0.0 | 30.8 | 0.1 |
| A30 | 823293 | 837535 | 4.5 | 7.5 | 30.7 | 0.0 | 30.8 | 0.0 |
| A31 | 823394 | 837960 | 3.9 | 7.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A32 | 823353 | 837069 | 4.5 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A33 | 823439 | 837932 | 3.9 | 7.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A34 | 823425 | 838140 | 5.2 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| A35 | 823581 | 838166 | 5 | 7.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A36 | 823703 | 837968 | 3.5 | 7.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A1Pa | 823688 | 837719 | 3 | 7.5 | 30.7 | 0.0 | 30.8 | 0.0 |
| A2Pa | 823545 | 837421 | 3 | 7.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| A3Pa | 823455 | 837785 | 4 | 7.5 | 30.8 | 0.1 | 30.8 | 0.1 |
| A4Pa | 823305 | 837427 | 4 | 7.5 | 30.7 | 0.0 | 30.8 | 0.0 |
| A5Pa | 823602 | 837796 | 4 | 7.5 | 30.7 | 0.0 | *** | *** |
| V01 | 823572 | 837356 | 3 | 7.5 | 30.7 | 0.0 | 30.8 | 0.1 |
| V02 | 823780 | 837738 | 2.4 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| V03 | 823525 | 837232 | 3 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| V04 | 823385 | 837124 | 4.8 | 7.5 | 30.7 | 0.0 | 30.7 | 0.0 |
| Max. FSP Level, ug/m3 | | | | | 31.0 | 0.3 | 31.0 | 0.3 |
| Relevant AQO Criteria, ug/m3 | | | | | 35 | 35 | 35 | 35 |
| Compliance with AQO? | | | | | Yes | Yes | Yes | Yes |

Remark: * The above results have included the background level extracted from the PATH Output (year 2015). The hour-by-hour background contribution is estimated using output of PATH model, and added hour-by-hour to the Project contribution in order to calculate the annual average total FSP levels.

** The FSP concentrations are calculated based on the predicted RSP concentrations by applying a FSP/RSP ratio of 0.3 according to the USEPA AP-42 reference document. Please refer to Appendix 3-10 for the justification of FSP/RSP ratio.

*** Planned ASR within the planned "Kam Pok Road Site" Project, which is not applicable in this cumulative impact assessment.