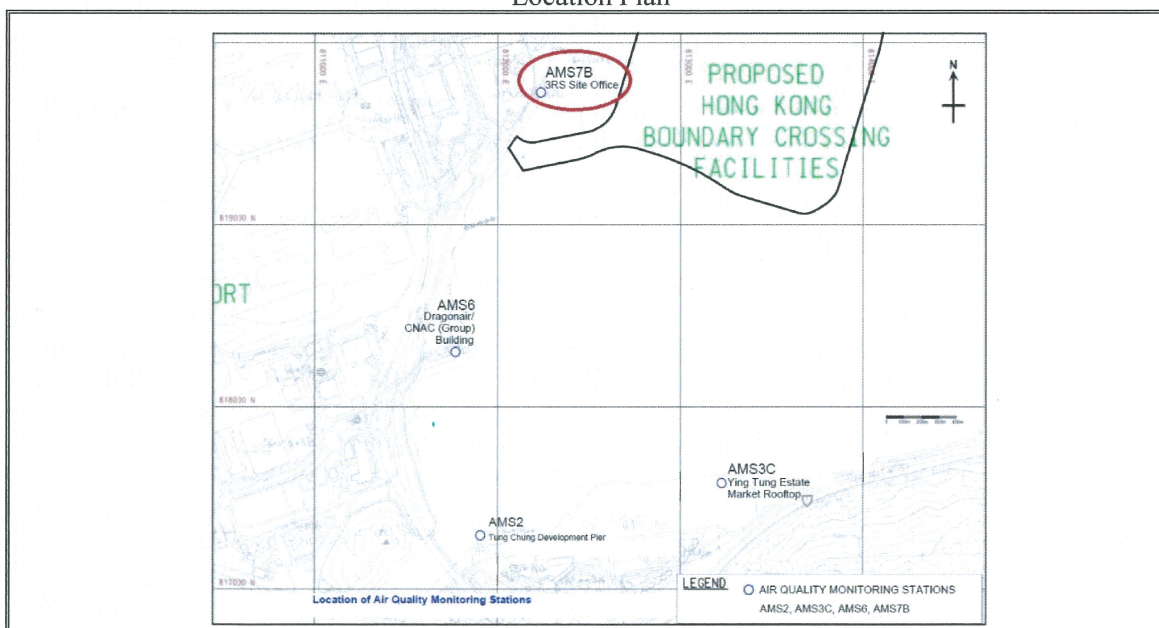


Incident Report on Action Level or Limit Level Non-compliance

Contract	Contract No. HY/2013/04 HZMB HKBCF – Infrastructure Works Stage II (Southern Portion)																											
Ref. No.	E102																											
Date	30 September 2019																											
Time (hh:mm)	Start time: 12:17 (p.m.)																											
Monitoring Location	AMS7B																											
Parameter	Air Quality – 24-hour TSP ($\mu\text{g}/\text{m}^3$)																											
Action Level	See below																											
Limit Level	See below																											
Measured Level	<table border="1"> <thead> <tr> <th colspan="7">Action & Limit Level (AL & LL) / Measured Level:</th> </tr> <tr> <th>Param.</th><th>Unit</th><th>Station ID</th><th>Description</th><th>Action Level</th><th>Limit Level</th><th>Measured Level</th></tr> </thead> <tbody> <tr> <td>24-hr TSP</td><td>$\mu\text{g}/\text{m}^3$</td><td>AMS7B</td><td>3RS Site Office</td><td>183</td><td>260</td><td>211</td></tr> </tbody> </table> <p>Remarks: Bold means AL exceedance <u>Bold with underline</u> means LL exceedance</p>							Action & Limit Level (AL & LL) / Measured Level:							Param.	Unit	Station ID	Description	Action Level	Limit Level	Measured Level	24-hr TSP	$\mu\text{g}/\text{m}^3$	AMS7B	3RS Site Office	183	260	211
Action & Limit Level (AL & LL) / Measured Level:																												
Param.	Unit	Station ID	Description	Action Level	Limit Level	Measured Level																						
24-hr TSP	$\mu\text{g}/\text{m}^3$	AMS7B	3RS Site Office	183	260	211																						
Possible reason for Action or Limit Level Non-compliance	<p>According to the Contractor of HY/2013/04, the major construction activities conducted under the Contract during the monitoring period included construction of parapets for bridge structures, construction of Retaining Wall RW16N and RW16S, construction of Bridge Deck D16 in-situ deck, construction of utilities cross-over frame under Bridge D9c, backfilling of retaining walls and formation of fill slopes and road embankment, drainage works and watermain laying, roadworks and road furniture.</p> <p>As informed by the Contractor of HY/2013/04, watering of all main haul roads was provided in accordance with the HY/2013/04 site watering plan (as presented in Attachment 1). This plan schedules water spraying for at least 8 times per day which follows the recommended mitigation measures in the EM&A Manual and Environmental Permit.</p> <p>During ET's regular weekly site inspection on 25 September 2019 (between 09:30 and 10:30 a.m.), one air quality observation was recorded: namely, stockpiles and some exposed works areas were observed dry and dusty. The same observation was recorded during the next ET regular weekly site inspection on 2 October 2019 (between 14:15 and 15:00). Subsequently, the Contractor provided water spray for stockpiles and exposed works areas and the observation was closed during the subsequent ET regular weekly site inspection on 9 October 2019 (between 14:15 and 15:00). The remaining haul roads were observed to be watered and no fugitive dust generation from HY/2013/04 works was observed during this inspection. There was further no air quality observation associated with watering of site areas. Photos relating to the abovementioned site inspections are presented in Attachment 2.</p> <p>The wind data collected at the AMS3C wind station at Ying Tung Estate and the Hong Kong Observatory wind station at Chek Lap Kok during the abovementioned 24-hour monitoring period (as presented in Attachment 3) shows that winds were mostly from the south/southwest on the afternoon/evening of 30 September 2019 and west/northwest on the morning of 1 October 2019. This indicates that it was unlikely that the source of exceedance could be attributed to HY/2013/04.</p>																											

	<p>Information available on EPD's Air Quality Health Index (AQHI) website shows that the short-term health risk of air pollution between 12:00 p.m. on 30 September 2019 and 12:00 p.m. on 1 October 2019 was low to serious in Tung Chung (with maximum AQHI of 10+ at 13:00-17:00 on 30 September 2019). This, combined with the winds recorded at the abovementioned wind stations, indicates that the background air pollution was relatively high during part of the monitoring period and may have contributed to the high level of TSP recorded. The AQHI data is available online at:</p> <ul style="list-style-type: none"> • http://www.aqhi.gov.hk/epd/ddata/html/history/2019/201909_Eng.csv • http://www.aqhi.gov.hk/epd/ddata/html/history/2019/201910_Eng.csv <p>It was concluded that the exceedance was not due to HY/2013/04.</p>
Actions taken / to be taken	<p>Although the exceedance was considered not due to HY/2013/04, the Contractor is reminded to properly implement site watering plan for the Contract and implement all necessary air quality mitigation measures identified in the EM&A Manual.</p>
Remarks	<p>ET of HY/2013/04 issued notification of exceedance (NOE) as follows:</p> <ul style="list-style-type: none"> • <u>24-hour TSP</u>: 9 October 2019 (Notification No. 20190930_Air_24hr). <p>Attachments to this report are as follows:</p> <ol style="list-style-type: none"> 1. Site watering plan for HY/2013/04. 2. Photos of site mitigation measures, air quality observation and Contractor's follow-up action on 25 September, 2 October and 9 October 2019. 3. Wind data during the 24-hour TSP monitoring period at AMS3C wind station at Ying Tung Estate and Hong Kong Observatory Chek Lap Kok wind station.

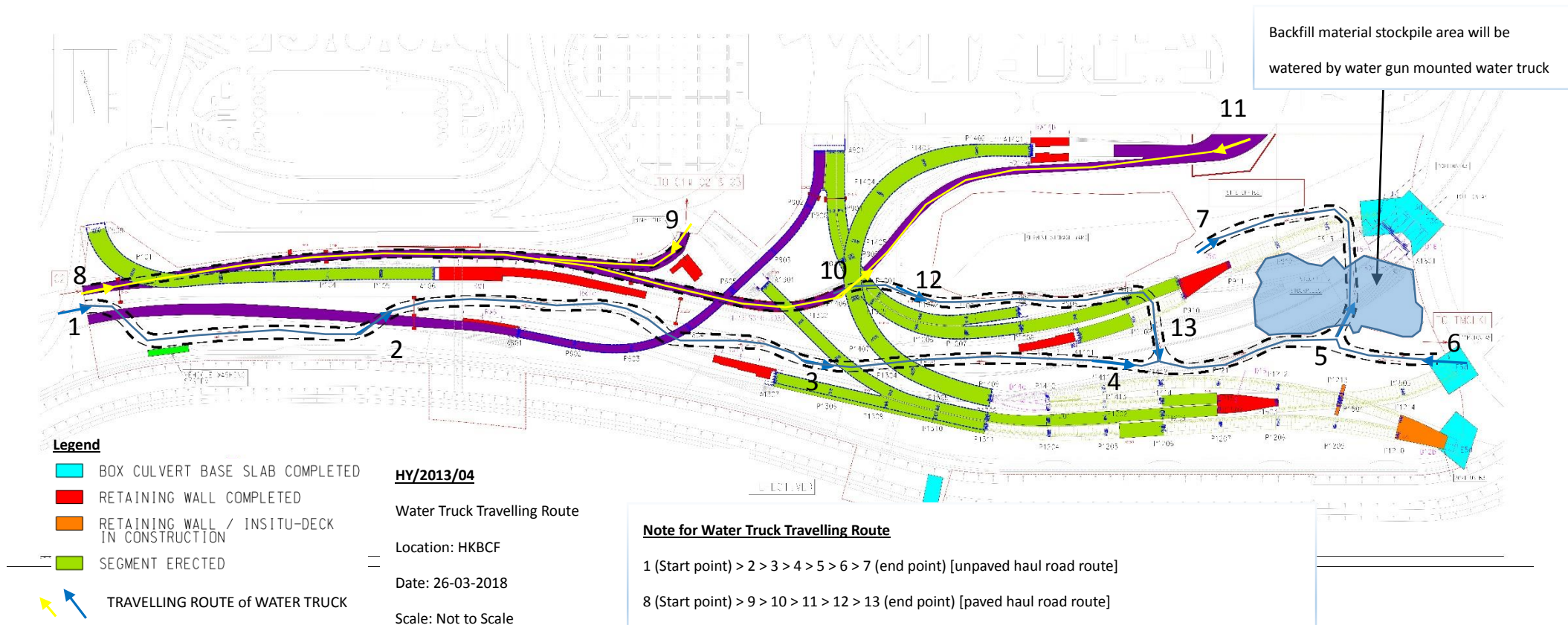
Location Plan



Prepared by: Gary Chow
Designation: Environmental Team Leader (Contract No. HY/2013/04)
Signature: 

Date: 18 October 2019

Attachment 1



HY/2013/04 Water Truck Travelling Route

Attachment 2

**Photo record of site mitigation measures and air quality observations
during weekly environmental site inspection**

25 September 2019



1. Water spray provided for haul roads in the HY/2013/04 site area. No fugitive dust generation was observed.

2. Air quality observation: Stockpiles and some exposed works areas were observed dry and dusty.

**Photo record of site mitigation measures and air quality observations
during weekly environmental site inspection**

2 October 2019



1. Air quality observation: Stockpiles and some exposed works areas were observed dry and dusty.

9 October 2019



1. Contractor's follow-up action: Water spray provided for haul roads in the HY/2013/04 site area. No fugitive dust generation and no air quality site observation was observed.

Attachment 3

Wind Data at AMS3C

Date	Time	Wind Speed (m/s)	Wind Direction
30/09/2019	12:00 PM	0.2	SSW
30/09/2019	1:00 PM	0.1	S
30/09/2019	2:00 PM	0.2	S
30/09/2019	3:00 PM	0.3	S
30/09/2019	4:00 PM	0.4	S
30/09/2019	5:00 PM	0.5	WSW
30/09/2019	6:00 PM	0.4	WSW
30/09/2019	7:00 PM	0.3	WSW
30/09/2019	8:00 PM	0.4	WSW
30/09/2019	9:00 PM	0.3	W
30/09/2019	10:00 PM	0.5	W
30/09/2019	11:00 PM	0.3	W
01/10/2019	12:00 AM	0.7	NW
01/10/2019	1:00 AM	1.1	NW
01/10/2019	2:00 AM	0.6	NW
01/10/2019	3:00 AM	0.7	W
01/10/2019	4:00 AM	0.8	W
01/10/2019	5:00 AM	0.7	NNW
01/10/2019	6:00 AM	1.2	NNW
01/10/2019	7:00 AM	0.4	NW
01/10/2019	8:00 AM	0.5	NW
01/10/2019	9:00 AM	0.6	NW
01/10/2019	10:00 AM	0.6	NW
01/10/2019	11:00 AM	0.5	W
01/10/2019	12:00 PM	0.4	W

Wind Data at Chek Lap Kok Collected by the Hong Kong Observatory

Date & Time	Wind Speed (km/h)	Wind Speed (m/s)	Wind Direction (degrees)
30/09/2019 12:00	15.5	4.3	293
30/09/2019 13:00	15.1	4.2	262
30/09/2019 14:00	17.6	4.9	285
30/09/2019 15:00	13.3	3.7	252
30/09/2019 16:00	9.7	2.7	262
30/09/2019 17:00	9.4	2.6	250
30/09/2019 18:00	8.3	2.3	250
30/09/2019 19:00	7.2	2.0	243
30/09/2019 20:00	7.6	2.1	200
30/09/2019 21:00	16.6	4.6	224
30/09/2019 22:00	16.2	4.5	223
30/09/2019 23:00	13.3	3.7	217
01/10/2019 00:00	10.8	3.0	222
01/10/2019 01:00	9.0	2.5	197
01/10/2019 02:00	9.4	2.6	216
01/10/2019 03:00	6.8	1.9	204
01/10/2019 04:00	12.2	3.4	220
01/10/2019 05:00	7.6	2.1	202
01/10/2019 06:00	6.5	1.8	194
01/10/2019 07:00	3.2	0.9	variable
01/10/2019 08:00	9.0	2.5	356
01/10/2019 09:00	12.2	3.4	331
01/10/2019 10:00	13.7	3.8	340
01/10/2019 11:00	10.1	2.8	330
01/10/2019 12:00	9.7	2.7	266