

**Temporary Sewage Pumping Station
Ancillary to Tung Chung Area 56 Public Housing Development**

**Monthly Environmental Audit Report No. 34
(Covering the Period from 1 August 2017 to 31 August 2017)**

9 November 2017

Revision 00

Main Contractor



**HSIN新昌
CHONG**

Independent Checker

ATKINS



Client: Hong Kong Housing Authority	Contract No. (if any):
Project Title: Temporary Sewage Pumping Station Ancillary to Tung Chung Area 56 Public Housing Development	Project No.: 5135697
Document No.: 5135697-OR034-00	Controlled Copy No.:
Document Title: Monthly Environmental Audit Report No. 34 (Covering the Period from 1 August 2017 to 31 August 2017)	
Covering Letter/Transmittal Ref. No.: 5135697/20.10/OC170/MW/HY	Date of Issue: 9 November 2017

Revision, Review and Approval Records

		/	/	/	/
		/	/	/	/
00	Monthly EA Report No. 34	 Heidi Yeung 9 Nov 2017	 Keith Chau 9 Nov 2017	 Wing Wong 9 Nov 2017	 Wing Wong 9 Nov 2017
Rev.	Description	Prepared by / date	Checked by / date	Reviewed by / date	Approved by / date

Distribution

Controlled Copy No.	Issued to
1 - 5	Environmental Protection Department
6	Hong Kong Housing Authority
7	Hsin Chong Construction Company Ltd.
8	Office Copy



Contents

Executive Summary

1	INTRODUCTION	2
1.1	Basic Project Information	2
1.2	Project Organisation.....	3
1.3	Construction Programme	3
1.4	Construction Works Undertaken During the Reporting Period	3
2	ENVIRONMENTAL SITE AUDIT	4
2.1	Site Inspection.....	4
2.2	Advice on the Solid and Liquid Waste Management Status.....	4
2.3	Environmental Licenses and Permits	4
2.4	Implementation Status of Environmental Mitigation Measures.....	4
2.5	Summary of Complaints, Notification of Summons and Successful Prosecution	4
3	FUTURE KEY ISSUES	6
3.1	Construction Programme for the Coming Months	6
3.2	Environmental Site Inspection Schedule for the Coming Month.....	6
4	CONCLUSION	7
4.1	Conclusions.....	7

Appendices

Appendix A	Location of the Project and the Contract
Appendix B	Project Organization for Environmental Works
Appendix C	Construction Programme
Appendix D	Waste Flow Table
Appendix E	Environmental Licenses and Permits
Appendix F	Statistics on Environmental Complaints, Notification of Summons and Successful Prosecutions



Executive Summary

This monthly Environmental Audit Report is prepared for Temporary Sewage Pumping Station Ancillary to Tung Chung Area 56 Public Housing Development (hereafter referred to as “the Project”) for the Hong Kong Housing Authority (HA) of Hong Kong Special Administrative Region. The Project was awarded to Hsin Chong Construction Company Ltd. (hereafter referred to as “the Contractor”) and Atkins China Limited was appointed as the Independent Checker (IC) by the Contractor.

The Project is classified as a “Designated Project”, under Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap 499). A Project Profile (Register No. PP-481/2013) was submitted for direct application of an Environmental Permit (EP) for the Project. The current EP (EP No: EP-452/2013) was issued on 6 June 2013. These documents are available through the EIA Ordinance Register. Site preparation works of the Project started on 14 November 2014 and the construction works of the Project commenced on 19 November 2014.

This is the thirty-fourth monthly Environmental Audit Report for the Project which summarizes the audit findings during the reporting period from 1 to 31 August 2017.

Complaint Log

There were no environmental complaints received during the reporting period.

Notifications of Summons and Successful Prosecutions

There were no notifications of summons or prosecutions received during this reporting period.

Future Key Issues

The future key issues include potential noise impact, air quality impact, water quality impact and waste management arising from the following construction activity to be undertaken in the upcoming month:

- Plant, mechanical and electrical testing and commissioning of the Temporary Sewage Pumping Station (TSTS); and
- Façade wall painting.



1 INTRODUCTION

1.1 Basic Project Information

- 1.1.1 This monthly Environmental Audit Report is prepared for Temporary Sewage Pumping Station Ancillary to Tung Chung Area 56 (hereafter referred to as “the Project”) for the Hong Kong Housing Authority (HA) of Hong Kong Special Administrative Region. The Project was awarded to Hsin Chong Construction Company Ltd. (hereafter referred to as “the Contractor”) and Atkins China Limited was appointed as the Independent Checker (IC) by the Contractor.
- 1.1.2 The Project is classified as a “Designated Project”, under Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) (Cap 499). A Project Profile (Register No. PP-481/2013) was submitted for direct application of Environmental Permit (EP). The current EP (EP No: EP-452/2013) was issued on 6 June 2013. These documents are available through the EIA Ordinance Register. Site preparation works of the Project started on 14 November 2014 and the construction works of the Project commenced on 19 November 2014. The works areas of the Project and the Contract are shown in **Appendix A**.
- 1.1.3 A Temporary Sewage Pumping Station (TSPS) was proposed as an ancillary facility to the proposed Tung Chung Area 56 Public Housing Development, to collect the sewage solely from the Tung Chung Area 56 Public Housing Development only and discharge it to the existing public sewer at Ying Hei Road.
- 1.1.4 The proposed TSPS is an un-manned facility and is not considered as a sensitive use susceptible to the influence of to external potential environmentally polluting uses.
- 1.1.5 According to the Planning Department’s Tung Chung Town Centre Area Layout Plan No. L/I-TCTC/1E, a permanent sewage pumping station (SPS) will be provided in the Tung Chung Area 104 located to the northeast of the Tung Chung Area 56. Upon the intake of the population of Tung Chung Area 56 Public Housing Development, the TSPS is expected to provide a few years of service to the public housing development. Upon the commissioning of the permanent sewage pumping station in Tung Chung Area 104, sewage generated in Tung Chung Area 56 public housing development will be conveyed to SPS in Tung Chung Area 104 and the operation of the TSPS in Area 56 will be terminated. The infrastructure works including permanent foul water pipes and manhole to the permanent SPS in Tung Chung Area 104 is scheduled to be provided during the construction period of the Tung Chung Area 56 public housing development for ease of future transition operations. Thus, the TSPS in Area 56 is of temporary nature.
- 1.1.6 This is the thirty-fourth monthly Environmental Audit Report for the Project which summarizes the audit findings during the reporting period from 1 to 31 August 2017.



1.2 Project Organisation

1.2.1 The project organization structure and lines of communication with respect to the on-site environmental management structure is shown in **Appendix B**. The key personnel contact names and numbers are summarized in **Table 1.1**.

Table 1.1 Contact Information of Key Personnel

Party	Position	Name	Telephone	Fax
Engineer or Engineer's Representative (Hong Kong Housing Authority)	Civil Engineer	Rachel Fung	2129 3709	2129 3095
Contractor (Hsin Chong Construction Company Ltd.)	Site Agent	Ivan Ho	9383 8280	3480 1791
	Environmental Manager	Siu Hon Wing	9139 5367	
	Environmental Supervisor	Ryan Wong	6198 0730	
Independent Checker (Atkins China Limited)	Independent Checker	Heidi Yeung	2972 1893	2890 6343

1.3 Construction Programme

1.3.1 A copy of the Contractor's construction programme is provided in **Appendix C**.

- 1.3.2 Based on the weekly site inspections during the reporting month, the following were recorded:
- The inlet chamber, wet well and screening facilities were installed within a reinforced concrete structure (EP Specific Condition 2.2);
 - The deodorizer with forced ventilation equipment was installed (EP Specific Condition 2.3);
 - Odour removal rate will be verified (EP Specific Condition 2.3);
 - The pump sets and the mechanically raked screens were provided within a reinforced concrete structure (EP Specific Condition 2.4);
 - Silencers with louvers were installed at all exits of the provided ventilation exhaust fans (EP Specific Condition 2.4);
 - Provision of a soundproof door and installation of acoustic louvers at all exits of the provided ventilation exhaust fans will be verified (EP Specific Condition 2.4);
 - A standby pump was provided (EP Specific Condition 2.5);
 - Power supply was provided by CLP (EP Specific Condition 2.5);
 - A wet well was provided (EP Specific Condition 2.5);
 - Roof greening will be implemented into two parts (i.e. green roof tray system and soft landscape). The green roof tray system and soft landscape will be implemented tentatively at the end of October 2017 and quarter 1 of 2018 by Development & construction Division of Housing Department, respectively. (EP Specific Condition 2.6); and
 - Colour scheme of the exterior of the building will be created to blend the TSPS into surroundings in September 2017. (Project Profile (Register No. PP-481/2013)).

1.4 Construction Works Undertaken During the Reporting Period



- 1.4.1 A summary of the construction activities undertaken during the reporting period is shown below:
- Plant and mechanical & electrical installation and commissioning of the TSPS.

2 ENVIRONMENTAL SITE AUDIT

2.1 Site Inspection

- 2.1.1 Site Inspections were carried out on a weekly basis to monitor the implementation of proper environmental protection and pollution control mitigation measures for the Project. During the reporting period, site inspections were carried out on 2, 10, 16, 25 and 29 August 2017.
- 2.1.2 Any environmental issue raised during the site inspections and the follow up actions taken by the Contractor are described below.

Date of Inspection	Observation	Actions Taken by Contractor / Recommendation	Date of Observations Closed
2 August 2017	Nil.	Nil.	Not applicable.
10 August 2017	Stagnant water was observed inside the TSPS.	the stagnant water was cleared and proper control measure was provided to prevent mosquito breeding at TSPS.	16 August 2017
16 August 2017	Nil.	Nil.	Not applicable.
25 August 2017	Nil.	Nil.	Not applicable.
29 August 2017	Nil.	Nil.	Not applicable.

- 2.1.3 The Contractor has rectified the environmental issue as recorded in the weekly site inspection conducted on 10 August 2017 during the reporting month. The Contractor has carried out mitigation measures recommended in the Project Profile and EP.

2.2 Advice on the Solid and Liquid Waste Management Status

- 2.2.1 The Contractor registered as a chemical waste producer for the Project. Sufficient numbers of receptacles were available for general refuse collection and sorting.
- 2.2.2 The monthly summary of waste flow table is detailed in **Appendix D**.
- 2.2.3 The Contractor was reminded to store the chemical waste containers properly on site in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.

2.3 Environmental Licenses and Permits

- 2.3.1 The valid environmental licenses and permits during the reporting period are summarized in **Appendix E**.

2.4 Implementation Status of Environmental Mitigation Measures

- 2.4.1 The Contractor has carried out mitigation measures recommended in the Project Profile and EP.

2.5 Summary of Complaints, Notification of Summons and Successful Prosecution



- 2.5.1 There were no complaints received during the reporting period.
- 2.5.2 No notification of summons and prosecution was received during the reporting period.
- 2.5.3 Statistics on environmental complaints, notifications of summons and successful prosecutions are summarized in **Appendix F**.



3 FUTURE KEY ISSUES

3.1 Construction Programme for the Coming Months

3.1.1 According to the Contractor, the major construction activity for September 2017 includes:

- Plant, mechanical and electrical testing and commissioning of the TSPS; and
- Facade wall painting.

3.2 Environmental Site Inspection Schedule for the Coming Month

3.2.1 The tentative schedule for weekly site inspections for the coming month is 5, 13, 20 and 27 September 2017.



4 CONCLUSION

4.1 Conclusions

- 4.1.1 Site preparation works of the Project started on 14 November 2014 and the construction works of the Project commenced on 19 November 2014.
- 4.1.2 The Contractor has rectified the environmental issue as recorded in the weekly site inspection conducted on 10 August 2017 during the reporting month. The Contractor has carried out mitigation measures recommended in the Project Profile and EP.
- 4.1.3 There were no environmental complaints received during the reporting period.
- 4.1.4 No notification of summons and successful prosecution were received during the reporting period.



APPENDIX A

Location of the Project and the Contract



0 50 100 150 Meters

Tung Chung Bay

TEMPORARY SEWAGE PUMPING STATION

Area 104

Area 89

Tung Chung Area 56




Area 55b

Ying Hei Road

North Lantau Expressway

Man Tung Road

LEGEND

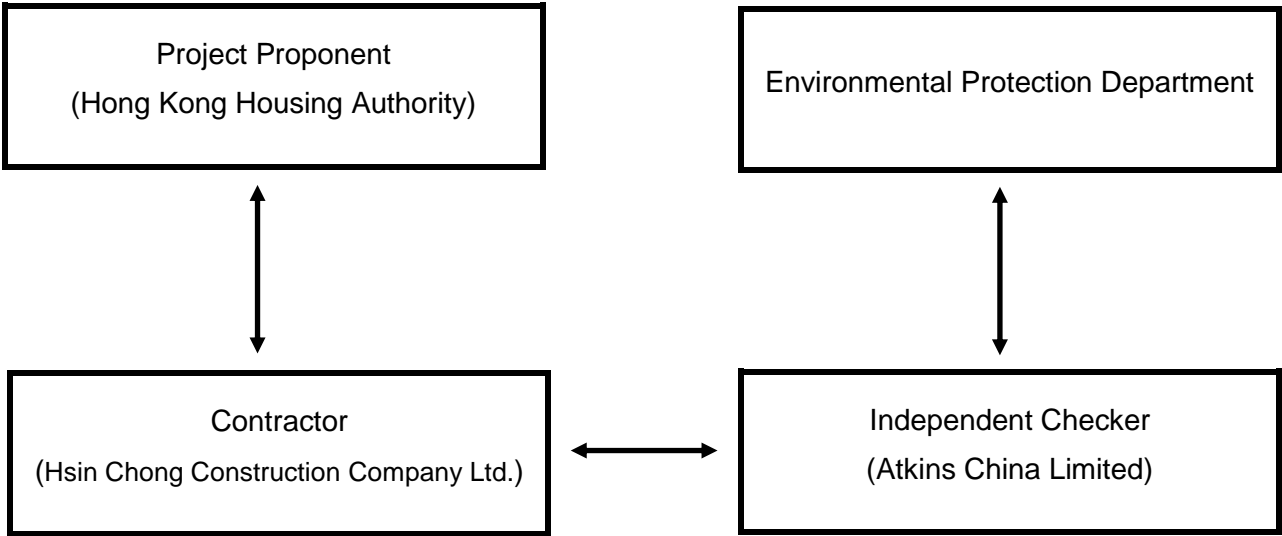
-  Temporary Sewage Pumping Station
-  Site Boundary of Tung Chung Area 56 Public Housing Development
-  500 m from Temporary Sewage Pumping Station



APPENDIX B

Project Organization for Environmental Works

Project Organization for Environmental Works





APPENDIX C

Construction Programme

Construction of Public Rental Housing Development at Tung Chung Area 56

ID	Task Name	Start	Finish	Duration	2014												2015			2016			2017		
					1st Quarter			4th Quarter			3rd Quarter			2nd Quarter			1st Quarter			4th Qua					
					Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Jan	May	Sep	Jan	May	Sep						
1	Construct Particulars	18-12-13	31-08-17	997 days																					
2	Contract commencement of all sections of works	18-12-13	18-12-13	0 days	18-12																				
3	Possession of Site	18-12-13	18-12-13	0 days	18-12																				
4	Original Project Completion Date	17-08-16	17-08-16	0 days																					
5	Extended Project Completion Date with Granted EOT (Up to 17 Dec 2016)	09-12-16	05-01-17	21 days	17-08																				
6	Section 1	02-01-17	02-01-17	0 days	02-01																				
7	Section 2	31-12-16	31-12-16	0 days	31-12																				
8	Section 3	04-01-17	04-01-17	0 days	04-01																				
9	Section 4	05-01-17	05-01-17	0 days	05-01																				
10	Section 5 - Section 9	09-12-16	09-12-16	0 days	09-12																				
11	Anticipated completion Date	22-02-17	31-08-17	135 days	22-02																				
12	Section 1-4	31-07-17	31-07-17	0 days	31-07																				
13	Section 5 - 7 & 9	31-08-17	31-08-17	0 days	31-08																				
14	Section 8	22-02-17	22-02-17	0 days	22-02																				
15	Preliminaries	18-12-13	25-08-17	994 days																					
16	Site Establishment	18-12-13	25-08-17	994 days																					
17	Mobilization and Temp Power / Water Supply Setup	18-12-13	17-01-14	30 edays																					
18	Installation of Temp TxRm & Temp Elect Connection	02-01-14	02-04-14	90 edays																					
19	Setup Temporary Container Site Office	18-12-13	25-12-13	7 edays																					
20	Design Drawing and Calculation of Site Office to CM Approval	27-12-13	22-02-14	45 edays																					
21	Setup Site Office	22-02-14	23-04-14	60 edays																					
22	Setup of Curing Rooms & STC Office	18-12-13	17-01-14	30 edays																					
23	Preconstruction condition survey	18-12-13	17-01-14	30 edays																					
24	Submit Method Statement for New Covered Walk for CM Approval	24-12-13	21-02-14	45 edays																					
25	New Covered Walkway erection along the Northern Boundary	22-02-14	25-10-14	180 edays																					
26	Correctness Survey of Previous Works	18-12-13	25-12-13	7 edays																					
27	Submission & Approval of Method Statement of Tower Crane 1st Setup (Block 1, 3 & 4)	19-12-13	17-02-14	60 edays																					
28	Erection of Tower Cranes (Block 1, 3 and 4)	17-02-14	29-03-14	40 edays																					
29	Footing for Tower Cranes (Block 2)	25-03-14	14-04-14	13 days																					
30	Erection of Tower Cranes (Block 2)	15-04-14	05-05-14	14 days																					
31	Dismantling of Tower Cranes (Block 1)	19-08-16	26-08-16	7 days																					
32	Dismantling of Tower Cranes (Block 2)	26-05-16	03-06-16	7 days																					
33	Dismantling of Tower Cranes (Block 3)	27-08-16	03-09-16	7 days																					
34	Dismantling of Tower Cranes (Block 4)	05-09-16	12-09-16	7 days																					
35	1st Erection of Material Hoists Starting from Ground Level (Block 1)	14-02-15	28-03-15	32 days																					
36	1st Erection of Material Hoists Starting from Ground Level (Block 2)	26-03-15	15-04-15	14 days																					
37	1st Erection of Material Hoists Starting from Ground Level (Block 3)	30-03-15	18-04-15	14 days																					
38	1st Erection of Material Hoists Starting from Ground Level (Block 4)	28-02-15	30-03-15	26 days																					
39	Dismantling of Material Hoists (Block 1 - 4)	13-09-16	18-10-16	28 days																					
40	1st Erection of Passenger Hoists (Block 1 - 4)	10-04-15	04-07-15	62 days																					
41	Dismantling of Passenger Hoists	17-03-17	25-04-17	28 days																					
42	1st Erection of Temporary Refuse Chutes (Block 1 - 4)	07-03-15	15-04-15	30 days																					
43	Dismantling of Temporary Refuse Chutes	05-09-16	07-10-16	26 days																					
44	Dismantle of Temp. Tx. Room (after notification from CLP)	24-12-16	12-01-17	14 days																					
45	Latest dismantle of Scaffold for Annex Building	30-06-17	21-07-17	16 days																					
46	Erection of Mid-way Gondola for Block 1, 3 and 4	08-10-15	24-10-15	14 days																					
47	1st Erection of Gondola at Roof for Block 2	27-02-16	20-05-16	60 days																					
48	Erection of Gondola at Roof for Block 1, 3 and 4 (High Zone)	06-02-16	09-03-16	24 days																					
49	Dismantle of Gondola (Block 1 - 4)	19-07-17	25-08-17	28 days																					
50	Relocation of Site Office	24-08-15	10-09-15	14 days																					
51	To 2/F of Block 2 for HA	01-09-15	10-09-15	7 days																					
52	To 1/F of Block 2 for HCC	24-08-15	31-08-15	7 days																					

Construction of Public Rental Housing Development at Tung Chung Area 56

ID	Task Name	Start	Finish	Duration	2014		2015			2016			2017				
					1st Quarter		4th Quarter		3rd Quarter			2nd Quarter			1st Quarter		4th Qua
					Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep
53	Submission of Technical Document	18-12-13	20-08-16	716 days													
225	Section 1 - Section 4 (Blk 1 to Blk 4)	09-01-14	31-07-17	959 days													
226	Timber Mock Up for the Kitchen & VPB & Approval	15-02-14	31-07-14	123 days													
227	Precast Element Fabrication	24-03-14	26-09-15	408 days													
228	Steel Mould Fabrication	24-03-14	20-11-14	177 days													
229	Fabrication of Mock-up Precast Elements	06-06-14	05-07-14	21 days													
230	Study Mock Up for the VPB & Trial Panel and Approval	07-07-14	05-11-14	90 days													
231	Mass Production of Precast Elements	30-10-14	26-09-15	250 days													
232	1st Delivery of P.C. Elements	01-11-14	01-11-14	0 days													
233	Latest issuance date of R.C. details R/F slab & UR/F	17-06-14	17-06-14	0 days													
234	RC Structure	09-01-14	31-07-17	959 days													
235	Domestic Blocks	09-01-14	18-06-16	660 days													
236	Block 1	09-01-14	13-06-16	655 days													
237	Pile Cap - G/F (Slab)	09-01-14	10-06-14	116 days													
238	Under Ground Drainage and Tanking	15-02-14	07-05-14	60 days													
239	Water Test for Drainage Works	28-03-14	13-05-14	30 days													
240	Construction of Precast Water Tank	26-04-14	06-06-14	33 days													
241	Installation of P.C. Water Tank	01-09-14	13-09-14	10 days													
242	G/F - 1/F slab	26-05-14	19-09-14	82 days													
243	1/F - Level 16.75 (Transfer Structure)	09-08-14	13-11-14	74 days													
244	Level 16.75 - 2/F slab	31-10-14	03-12-14	29 days													
245	2/F to 3/F Slab	26-11-14	19-01-15	43 days													
246	3/F to 4/F Slab	09-01-15	13-02-15	30 days													
247	4/F to 5/F Slab	04-02-15	10-03-15	25 days													
248	5/F to 6/F Slab	07-03-15	30-03-15	20 days													
249	6/F to 7/F Slab	27-03-15	17-04-15	15 days													
250	7/F to 8/F Slab	15-04-15	30-04-15	14 days													
251	8/F to 9/F Slab	06-05-15	27-05-15	14 days													
252	9/F to 39/F (30 Floors x 6 days cycle) details shown in 90days programme	21-05-15	04-02-16	192 days													
283	39/F - Main Roof slab	02-02-16	24-02-16	16 days													
284	Main Roof - LMR - Upper Roof (Detailed Programmed to be Submitted Separately)	20-02-16	13-06-16	79 days													
285	Parapet Wall	22-02-16	15-04-16	40 days													
286	Lift Machine Room	20-02-16	27-04-16	50 days													
287	Water Tank	20-02-16	13-06-16	79 days													
288	Generator Room	25-02-16	04-05-16	50 days													
289	Block 2	09-01-14	16-05-16	638 days													
290	Pile Cap - G/F (Slab)	09-01-14	10-06-14	116 days													
291	Under Ground Drainage and Tanking	15-02-14	07-05-14	60 days													
292	Water Test for Drainage Works	28-03-14	13-05-14	30 days													
293	Construction of Precast Water Tank	26-04-14	06-06-14	33 days													
294	Installation of P.C. Water Tank	27-08-14	06-09-14	10 days													
295	G/F - 1/F slab	29-05-14	13-09-14	75 days													
296	1/F - 2/F slab	03-09-14	07-11-14	52 days													
297	2/F - Level 22.10 (Transfer Structure)	06-11-14	06-02-15	76 days													
298	Level 22.10 - 3/F slab	27-01-15	25-02-15	21 days													
299	3/F to 4/F Slab	13-02-15	25-03-15	30 days													
300	4/F to 5/F Slab	17-03-15	13-04-15	20 days													
301	5/F to 6/F Slab	01-04-15	21-04-15	14 days													
302	6/F to 7/F Slab	18-04-15	02-05-15	12 days													
303	7/F to 8/F Slab	29-04-15	12-05-15	10 days													
304	8/F to 9/F Slab	13-05-15	28-05-15	10 days													
305	9/F to 10/F Slab	22-05-15	04-06-15	9 days													

Construction of Public Rental Housing Development at Tung Chung Area 56

ID	Task Name	Start	Finish	Duration	2014			2015			2016			2017						
					1st Quarter			4th Quarter			3rd Quarter			2nd Quarter			1st Quarter			4th Qua
					Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep
306	10/F to 37/F (27 Floors x 6 days cycle) details shown in 90 days programme	02-06-15	20-01-16	172 days																
334	37/F - Main Roof slab	16-01-16	18-02-16	25 days																
335	Main Roof - LMR - Upper Roof (Detailed Programmed to be Submitted Separately)	15-02-16	16-05-16	67 days																
336	Parapet Wall	16-02-16	08-04-16	40 days																
337	Lift Machine Room	15-02-16	05-05-16	60 days																
338	Water Tank	17-02-16	16-05-16	65 days																
339	Generator Room	19-02-16	11-05-16	60 days																
340	Block 3	09-01-14	18-06-16	660 days																
341	Pile Cap - G/F (Slab)	09-01-14	10-06-14	116 days																
342	Under Ground Drainage and Tanking	15-02-14	07-05-14	60 days																
343	Water Test for Drainage Works	28-03-14	13-05-14	30 days																
344	Construction of Precast Water Tank	26-04-14	06-06-14	33 days																
345	Installation of P.C. Water Tank	28-08-14	08-09-14	10 days																
346	G/F - 1/F slab	31-05-14	15-09-14	74 days																
347	1/F - Level 16.30 (Transfer Structure)	02-09-14	30-12-14	96 days																
348	Level 16.30 - 2/F slab	17-12-14	24-01-15	30 days																
349	2/F to 3/F Slab	16-01-15	09-03-15	40 days																
350	3/F to 4/F Slab	06-03-15	28-03-15	20 days																
351	4/F to 5/F Slab	26-03-15	22-04-15	20 days																
352	5/F to 6/F Slab	20-04-15	04-05-15	12 days																
353	6/F to 7/F Slab	29-04-15	14-05-15	12 days																
354	7/F to 8/F Slab	12-05-15	29-05-15	12 days																
355	8/F to 9/F Slab	30-05-15	10-06-15	10 days																
356	9/F to 39/F (30 Floors x 6 days cycle) details shown in 90days programme	08-06-15	20-02-16	190 days																
387	39/F - Main Roof slab	18-02-16	04-03-16	14 days																
388	Main Roof - LMR - Upper Roof (Detailed Programmed to be Submitted Separately)	02-03-16	18-06-16	75 days																
389	Parapet Wall	02-03-16	26-04-16	40 days																
390	Lift Machine Room	02-03-16	11-05-16	50 days																
391	Water Tank	02-03-16	18-06-16	75 days																
392	Generator Room	05-03-16	16-05-16	50 days																
393	Block 4	09-01-14	16-06-16	658 days																
394	Pile Cap - G/F (Slab)	09-01-14	10-06-14	116 days																
395	Under Ground Drainage and Tanking	15-02-14	07-05-14	60 days																
396	Water Test for Drainage Works	28-03-14	13-05-14	30 days																
397	Construction of Precast Water Tank	26-04-14	06-06-14	33 days																
398	Installation of P.C. Water Tank	02-08-14	18-08-14	10 days																
399	G/F - 1/F slab	31-05-14	25-08-14	58 days																
400	1/F - Level 16.75 (Transfer Structure)	04-08-14	21-11-14	84 days																
401	Level 16.75 - 2/F slab	01-11-14	15-12-14	38 days																
402	2/F to 3/F Slab	08-12-14	31-01-15	44 days																
403	3/F to 4/F Slab	22-01-15	27-02-15	27 days																
404	4/F to 5/F Slab	18-02-15	24-03-15	25 days																
405	5/F to 6/F Slab	21-03-15	17-04-15	20 days																
406	6/F to 7/F Slab	15-04-15	02-05-15	15 days																
407	7/F to 8/F Slab	29-04-15	18-05-15	15 days																
408	8/F to 9/F Slab	14-05-15	02-06-15	13 days																
409	9/F to 40/F (31 Floors x 6 days cycle) details shown in 90 days programme	30-05-15	20-02-16	197 days																
441	40/F - Main Roof slab	18-02-16	05-03-16	15 days																
442	Main Roof - LMR - Upper Roof (Detailed Programmed to be Submitted Separately)	03-03-16	16-06-16	72 days																
443	Parapet Wall	03-03-16	27-04-16	40 days																
444	Lift Machine Room	03-03-16	12-05-16	50 days																
445	Water Tank	03-03-16	16-06-16	72 days																

Construction of Public Rental Housing Development at Tung Chung Area 56

ID	Task Name	Start	Finish	Duration	2014				2015			2016			2017		
					1st Quarter			4th Quarter	3rd Quarter		2nd Quarter	1st Quarter		4th Qua			
					Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep			
446	Generator Room	07-03-16	17-05-16	50 days													
447	Link Decks	15-07-15	31-07-17	547 days													
448	Submit SSP	15-07-15	19-07-15	4 edays													
449	Submit & Approve Method Statement for Footing Construction	24-07-15	04-08-15	10 days													
450	Apply for CM's Permission for excavation & footing	05-08-15	04-09-15	22 days													
451	Link Decks No. 1	09-09-16	31-07-17	243 days													
452	Excavation for the footing	09-09-16	29-09-16	17 days													
453	Footing construction	30-09-16	18-10-16	14 days													
454	Link Decks Structure Construction	16-01-17	24-03-17	50 days													
455	Link Decks Finishing Works	27-03-17	31-07-17	90 days													
456	Link Decks No. 2 and 3	12-08-16	31-07-17	264 days													
457	Link Decks Column	12-08-16	17-09-16	28 days													
458	Link Decks Structure Construction	19-09-16	30-11-16	61 days													
459	Link Decks Finishing Works	02-01-17	31-07-17	150 days													
460	Link Decks No.4	29-09-16	31-07-17	227 days													
461	Link Decks Structure Construction	29-09-16	30-11-16	52 days													
462	Link Decks Finishing Works	16-01-17	31-07-17	140 days													
463	Link Decks No.5	14-07-16	31-07-17	284 days													
464	Link Decks Structure Construction	14-07-16	19-08-16	24 days													
465	Link Decks Finishing Works	16-01-17	31-07-17	140 days													
466	Link Decks No. 6	05-04-16	31-07-17	351 days													
467	Excavation for the footing	05-04-16	12-04-16	7 days													
468	Footing construction	14-04-16	27-04-16	11 days													
469	Link Decks Structure Construction	27-04-16	24-06-16	40 days													
470	Link Decks Finishing Works	14-12-16	31-07-17	164 days													
471	Link Decks No. 7	30-06-16	31-07-17	292 days													
472	Excavation for the footing	30-06-16	11-07-16	7 days													
473	Footing construction	12-07-16	26-07-16	12 days													
474	Link Decks Structure Construction	18-10-16	13-02-17	94 days													
475	Link Decks Finishing Works	16-03-17	31-07-17	97 days													
476	Link Decks No. 8	21-07-16	31-07-17	278 days													
477	Excavation for the footing	21-07-16	28-07-16	7 days													
478	Footing construction	29-07-16	20-08-16	12 days													
479	Link Decks Structure Construction	19-12-16	24-03-17	70 days													
480	Link Decks Finishing Works	27-03-17	31-07-17	90 days													
481	Finishing Works	28-05-15	24-07-17	576 days													
482	Sample Wing @ Blk 1	28-05-15	21-08-15	60 days													
483	Sample Wing @ Blk 4	03-06-15	27-08-15	60 days													
484	Internal finishes for Flat Unit (Detailed Programmed to be Submitted Separately)	28-05-15	04-07-17	562 days													
485	Fair Face Formation	28-05-15	16-05-16	260 days													
486	Door Subframe	18-06-15	13-06-16	260 days													
487	Drywall	29-05-15	17-06-16	280 days													
488	Window Frame	28-08-15	09-07-16	230 days													
489	Door Kerb	24-09-15	04-07-16	205 days													
490	Waterproofing (Kitchen)	05-10-15	20-07-16	211 days													
491	Floor Screeding	10-10-15	08-08-16	221 days													
492	Wall Tiling (Including Making Good of Concrete Surface)	10-11-15	06-09-16	215 days													
493	Floor Tiling	10-12-15	22-09-16	203 days													
494	Skim coat and Painting (except final paint)	10-10-15	29-05-17	440 days													
495	Final Paint	12-08-16	04-07-17	245 days													
496	P & D Pipework	24-11-15	24-05-17	400 days													
497	Door Set & Ironmongeries	16-07-16	01-06-17	240 days													

Construction of Public Rental Housing Development at Tung Chung Area 56

ID	Task Name	Start	Finish	Duration	2014		2015			2016			2017				
					1st Quarter		4th Quarter		3rd Quarter		2nd Quarter		1st Quarter		4th Qua		
					Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep
498	Granite Threshold	27-07-16	14-06-17	240 days													
499	Cooking Bench	13-08-16	15-06-17	231 days													
500	Metal Gate Set	11-07-16	09-06-17	250 days													
501	Sanitary Fittings	13-08-16	17-05-17	210 days													
502	Mirror	22-07-16	12-04-17	200 days													
503	Laundry Rack	22-07-16	22-06-17	250 days													
504	Sealant Pointing	22-07-16	11-05-17	220 days													
505	Internal finishes for Common Area and Service Rooms	18-06-15	06-07-17	547 days													
506	Door Subframe	18-06-15	13-06-16	260 days													
507	Blockwork	30-06-15	21-06-16	260 days													
508	Metalwork	13-10-15	12-12-16	318 days													
509	Door Kerb	10-09-15	14-04-16	164 days													
510	Wall Backing & Fair Face Formation	01-09-15	13-06-16	209 days													
511	Window Frame	27-08-15	31-05-16	207 days													
512	Waterproofing	02-10-15	17-06-16	190 days													
513	Floor Screeding	09-10-15	23-06-16	191 days													
514	Wall Tiling	12-02-16	11-10-16	172 days													
515	Floor Tiling	21-12-15	18-10-16	214 days													
516	Skim Coat and Painting (Ceiling)	24-09-15	15-05-17	440 days													
517	P & D Pipework	13-10-15	03-05-17	420 days													
518	Spray Painting	25-04-16	09-06-17	300 days													
519	Door Set & Ironmongeries	09-07-16	08-06-17	250 days													
520	FRP Metal Door	29-07-16	02-06-17	230 days													
521	Make Good and Spray Painting after Metal Door Installation	01-11-16	16-06-17	170 days													
522	Signage	28-07-16	08-06-17	235 days													
523	Sealant Pointing	10-09-16	06-07-17	225 days													
524	Roof Finishes	25-06-16	26-06-17	269 days													
525	Floor Screeding	25-06-16	30-08-16	43 days													
526	Waterproofing	31-08-16	30-09-16	26 days													
527	Water Tightness Test for Roof	30-09-16	11-10-16	8 days													
528	Insulation and Screeding	03-09-16	15-10-16	34 days													
529	Roof Tiling	03-09-16	28-03-17	160 days													
530	Sealant Pointing	29-03-17	18-04-17	15 days													
531	Metalwork	17-04-17	26-06-17	50 days													
532	External Wall Finishes (Typical Floor)	26-10-15	28-06-17	450 days													
533	Block 1, 3 & 4 - Low Zone (2/F - 20/F)	26-10-15	14-07-16	190 days													
534	Fair Face Formation	26-10-15	02-06-16	165 days													
535	Water Tightness Test for Tie Bolt Holes	12-11-15	25-06-16	165 days													
536	Spray Paint	16-01-16	05-07-16	120 days													
537	P & D Pipework	20-02-16	14-07-16	100 days													
538	Block 1 & 2	18-03-16	28-06-17	337 days													
539	Fair Face Formation	18-03-16	07-04-17	280 days													
540	Water Tightness Test for Tie Bolt Holes	08-04-16	11-04-17	270 days													
541	Spray Paint	16-04-16	26-04-17	275 days													
542	P & D Pipework	25-04-16	27-04-17	270 days													
543	Gas Pipework	18-05-16	21-04-17	250 days													
544	Glazing Installation	18-06-16	12-06-17	265 days													
545	Sealant Pointing	22-07-16	15-06-17	245 days													
546	Water Tightness Test for Façade Joint and Windows	29-07-16	28-06-17	248 days													
547	Finishing Works for External Wall after Material Hoist and Passenger Hoist Dismantling	19-10-16	18-05-17	160 days													
548	Block 3 & 4	14-04-16	28-06-17	321 days													
549	Fair Face Formation	14-04-16	10-04-17	265 days													

Construction of Public Rental Housing Development at Tung Chung Area 56

ID	Task Name	Start	Finish	Duration	2014			2015			2016			2017						
					1st Quarter			4th Quarter			3rd Quarter			2nd Quarter			1st Quarter			4th Qua
					Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep
550	Water Tightness Test for Tie Bolt Holes	29-04-16	19-04-17	260 days																
551	Spray Paint	25-06-16	09-05-17	235 days																
552	P & D Pipework	08-07-16	10-05-17	230 days																
553	Gas Pipework	14-07-16	21-04-17	214 days																
554	Glazing Installation	14-07-16	20-06-17	255 days																
555	Sealant Pointing	08-08-16	26-06-17	240 days																
556	Water Tightness Test for Façade Joint and Windows	19-08-16	28-06-17	238 days																
557	Finishing Works for External Wall after Material Hoist and Passenger Hoist Dismantling	19-10-16	15-06-17	180 days																
558	Internal Finishes (G/F - 1/F)	06-04-16	24-07-17	345 days																
559	Door Subframe	06-04-16	31-05-16	40 days																
560	Blockwork	26-04-16	04-07-16	45 days																
561	Door Kerb & Additional U Chaneel	22-06-16	26-04-17	230 days																
562	Waterproofing	05-07-16	24-02-17	180 days																
563	Wall Backing & Fair Face Formation	25-07-16	05-11-16	79 days																
564	Floor Screeding	13-08-16	31-05-17	220 days																
565	Wall Tiling	31-08-16	09-03-17	150 days																
566	Floor Tiling	15-09-16	15-03-17	141 days																
567	Skim coat and Painting	23-09-16	15-05-17	177 days																
568	Door Set & Ironmongeries	24-04-17	19-06-17	40 days																
569	Mail Box and Guard counter	24-04-17	24-07-17	65 days																
570	Play Surfaces and Play Equipment	06-06-17	24-07-17	35 days																
571	External Finishes (G/F - 1/F)	15-06-16	12-07-17	290 days																
572	Fair Face Formation	15-06-16	21-03-17	210 days																
573	Steel and Metal Works	27-07-16	21-06-17	245 days																
574	Metal Door Louver and Windows	23-08-16	07-06-17	220 days																
575	Shutter (shopfront)	17-10-16	06-06-17	175 days																
576	Glass Door and Glass Shop Front	31-10-16	06-07-17	185 days																
577	Signbox (shopfront)	10-11-16	12-07-17	180 days																
578	Spray Paint	26-10-16	31-05-17	163 days																
579	Plumbing and Drainage Works	29-11-14	18-07-17	706 days																
580	Form WWO 46 Part I & II Submission	29-11-14	29-11-14	0 days																
581	Plumbing and Drainage Pipework Installation for Block 1-4	29-02-16	31-05-17	333 days																
582	Installation of Water Meter for Flat Unit	12-04-17	21-06-17	50 days																
583	Hydraulic Test of Plumbing System	28-04-17	14-06-17	33 days																
584	Leakage Test of Drainage System	15-06-17	18-07-17	24 days																
585	Building Services Installation	26-05-14	20-07-17	849 days																
586	Electrical Works for Domestic Blocks	26-05-14	18-07-17	847 days																
587	Concealed Conduit Installation & Other Conduit Works	26-05-14	30-06-16	565 days																
588	Wiring Works	11-09-15	17-10-16	293 days																
589	Handover of TX Room for NSCs	26-04-16	26-04-16	0 days																
590	TX Room Inspection & Handover to CLP	15-06-16	15-06-16	0 days																
591	Make Available Vehicular Access for TX Installation	24-05-16	24-05-16	0 days																
592	Make Available 1.5m Wide Area for UG Cable Route to CLP	15-06-16	15-06-16	0 days																
593	Handover of Main Switch Room for NSC	14-03-15	14-03-15	0 days																
594	Handover of Low Zone Meter Rooms for NSC	29-03-16	29-03-16	0 days																
595	Handover of High Zone Meter Rooms to NSC	27-05-16	27-05-16	0 days																
596	Handover of Genset Room for NSC	05-10-16	05-10-16	0 days																
597	Make Available Vehicular Access for Transportation of Equipment to Genset & Main Switch Rm	05-08-16	05-08-16	0 days																
598	Make Available the U/G Cable Ducts and Draw Pits to NSC and CLP	19-09-16	19-09-16	0 days																
599	CLP installation & power-on of TxRm	19-09-16	03-11-16	45 edays																
600	Electrical Meter Installation for Common Area and Flat Unit	01-11-16	16-11-16	14 days																
601	Power Energisation	17-11-16	21-11-16	4 days																

Construction of Public Rental Housing Development at Tung Chung Area 56

ID	Task Name	Start	Finish	Duration	2014												2015			2016			2017		
					1st Quarter			4th Quarter			3rd Quarter			2nd Quarter			1st Quarter			4th Qua					
					Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep	Jan	May			
602	Testing & Commissioning	22-11-16	07-12-16	14 days																					
603	PV Panel	18-08-15	18-07-17	516 days																					
604	Available of Drawing	18-08-15	18-08-15	0 days																					
605	Shop Drawing and Method Statement Submission and Approval	18-08-15	03-11-15	60 days																					
606	Sample and Mock-up Erection for CM Approval	04-11-15	08-12-15	30 days																					
607	PV Panels at Roof Installation	24-11-16	27-04-17	115 days																					
608	EMO BIPV Windows Installation / Vertical PV Panels	03-05-17	18-07-17	55 days																					
609	FTNS Works & DPTPS Works for Domestic Blocks	02-02-17	20-07-17	120 days																					
610	Make Available of TBE Rooms & Telecom Rooms	02-02-17	02-02-17	0 days																					
611	Make Available the Lead-in Duct and Area for FTNS & DPTPS	02-02-17	02-02-17	0 days																					
612	FTNS Installation	02-02-17	01-06-17	85 days																					
613	Testing & Commissioning	02-06-17	20-07-17	35 days																					
614	Fire Services Works for Domestic Blocks	26-05-14	16-06-17	825 days																					
615	Concealed Conduit and System Installation	26-05-14	24-08-16	600 days																					
616	Form WO46 Part I & II Submission	29-11-14	29-11-14	0 days																					
617	Make Available of Water Tanks & Pump Rooms on G/F for NSC	12-11-16	12-11-16	0 days																					
618	F.S. Pipe and Pump Installation	12-11-16	15-03-17	94 days																					
619	Make Available of FS Booster Pump Room & Rainwater Treatment Plant Room	12-11-16	12-11-16	0 days																					
620	Make-ready of Water Tanks & Pump Rooms on R/F to NSC	12-11-16	12-11-16	0 days																					
621	F.S. Pipe and Pump Installation	14-11-16	15-03-17	93 days																					
622	Testing & Commissioning	16-03-17	16-06-17	66 days																					
623	Lift Installation Works for Domestic Block and MRL at 1 to 4	25-04-16	06-04-17	255 days																					
624	Erection of Metal Scaffoldings inside Lift Shaft	25-04-16	04-06-16	30 days																					
625	Handover of Lift Shafts & Lift Machine Room to NSC	30-05-16	07-06-16	7 days																					
626	Lifts Installations (110 Calendar Days)	07-06-16	25-09-16	110 edays																					
627	Dismantling Metal Scaffoldings inside Lift Shafts	15-10-16	18-10-16	3 days																					
628	Submit Form LE5 to EMSD	24-11-16	15-02-17	64 days																					
629	EMSD's Inspection & Lift Certificate Issuance	06-01-17	16-03-17	50 days																					
630	Lift Inspection by HA	10-02-17	06-04-17	40 days																					
631	Town Gas for Domestic Blocks	31-03-17	31-05-17	42 days																					
632	Make Available the Area Along External U/G route to T.G.	31-03-17	31-03-17	0 days																					
633	T.G. Pipe Installation	31-03-17	31-05-17	61 edays																					
634	T.G. Meter Installation	31-03-17	31-05-17	61 edays																					
635	Section 5 - ISC, Shops Block, Supermarket, TSPS, RCP, Wet Market	28-08-14	25-08-17	809 days																					
636	Issue All Structural Drawing of ISC, Supermarket, TSPS, RCP, Wet Market	28-08-14	28-08-14	0 days																					
637	ISC	18-03-16	02-08-17	362 days																					
638	RC structure	18-03-16	30-12-16	209 days																					
639	Excavation for the footing & Plate Load Test	18-03-16	30-03-16	6 days																					
640	Footing construction	31-03-16	20-04-16	15 days																					
641	Footing to G/F beam and slab construction	21-04-16	20-08-16	80 days																					
642	G/F - roof construction	15-08-16	20-10-16	52 days																					
643	Planter and Parapet Wall	29-10-16	21-11-16	20 days																					
644	Water Tank	22-11-16	30-12-16	32 days																					
645	Finishes	03-01-17	02-08-17	151 days																					
646	Roof Finishing Works	03-01-17	01-08-17	150 days																					
647	Internal Finishing Works	03-01-17	25-07-17	145 days																					
648	External Wall Finishing Works	15-02-17	02-08-17	120 days																					
649	Building services installation	14-11-16	02-06-17	149 days																					
650	Building services installation	14-11-16	21-04-17	120 days																					
651	Handover water tanks & pump rooms to NSC	22-02-17	22-02-17	0 days																					
652	FS Pipe & water pump installation	23-02-17	22-03-17	20 days																					
653	Testing & commissioning (EL, FS, P&D)	23-03-17	02-06-17	51 days																					

Construction of Public Rental Housing Development at Tung Chung Area 56

ID	Task Name	Start	Finish	Duration	Gantt Chart											
					2014			2015			2016			2017		
					1st Quarter	4th Quarter	3rd Quarter	2nd Quarter	1st Quarter	4th Quarter						
Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep				
654	Supermarket, TSPS, RCP	25-11-14	25-08-17	739 days	[Gantt bar spanning from late 2014 to late 2017]											
655	TSPS	25-11-14	03-03-16	348 days	[Gantt bar from late 2014 to early 2016]											
656	RC Structure	25-11-14	03-03-16	348 days	[Gantt bar from late 2014 to early 2016]											
657	Submit and Approval of Environmental Office (TSPS)	25-11-14	10-12-14	14 days	[Gantt bar in late 2014]											
658	Pipe pile & King Post installation & grout curtain (TSPS)	11-12-14	27-01-15	37 days	[Gantt bar from late 2014 to early 2015]											
659	Pumping test and report submission (TSPS)	28-01-15	03-03-15	25 days	[Gantt bar in early 2015]											
660	Submit as-built record to CM for Approval (TSPS)	04-03-15	28-03-15	22 days	[Gantt bar in early 2015]											
661	Submit ICU14 & Obtain CM's Approval for ELS Work (TSPS)	30-03-15	08-05-15	30 days	[Gantt bar from early to mid 2015]											
662	ELS for the footing (TSPS) & Plate Load Test	09-05-15	05-08-15	60 days	[Gantt bar from mid 2015 to late 2015]											
663	Submit as-built ELS record to ICU (TSPS)	04-07-15	05-08-15	22 days	[Gantt bar in late 2015]											
664	Footing construction (TSPS)	06-08-15	18-11-15	80 days	[Gantt bar from late 2015 to early 2016]											
665	Footing to G/F beam and slab construction (TSPS)	19-11-15	24-12-15	30 days	[Gantt bar in early 2016]											
666	G/F - roof construction (TSPS)	28-12-15	03-03-16	50 days	[Gantt bar from early 2016 to early 2016]											
667	RCP & Supermarket	18-01-16	25-08-17	427 days	[Gantt bar from early 2016 to late 2017]											
668	ELSW	18-01-16	03-03-16	36 days	[Gantt bar in early 2016]											
669	Sheet pile installation (RCP, Supermarket)	18-01-16	02-02-16	14 days	[Gantt bar in early 2016]											
670	Submit as-built record to CM for Approval (RCP, Supermarket)	03-02-16	03-03-16	22 days	[Gantt bar in early 2016]											
671	Submit ICU14 & Obtain CM's Approval for ELS Work (RCP & Supermarket)	03-02-16	03-03-16	22 days	[Gantt bar in early 2016]											
672	RCP	16-06-16	25-08-17	321 days	[Gantt bar from mid 2016 to late 2017]											
673	RC Structure	16-06-16	30-12-16	151 days	[Gantt bar from mid 2016 to late 2016]											
674	Excavation for the footing	16-06-16	07-07-16	14 days	[Gantt bar in mid 2016]											
675	Footing construction	08-07-16	25-07-16	14 days	[Gantt bar in mid 2016]											
676	Footing to G/F beam and slab construction	26-07-16	07-10-16	54 days	[Gantt bar from mid 2016 to late 2016]											
677	G/F - roof construction	08-10-16	26-11-16	42 days	[Gantt bar in late 2016]											
678	Planter and Parapet Wall	06-12-16	30-12-16	20 days	[Gantt bar in late 2016]											
679	Finishing Works	19-01-17	03-08-17	140 days	[Gantt bar from early 2017 to mid 2017]											
680	Roof Finishing Works	19-01-17	20-07-17	130 days	[Gantt bar from early 2017 to mid 2017]											
681	Internal Finishing Works	06-02-17	01-06-17	83 days	[Gantt bar in early 2017]											
682	External Wall Finishing Works	19-01-17	03-08-17	140 days	[Gantt bar from early 2017 to mid 2017]											
683	Building services installation	27-02-17	22-06-17	83 days	[Gantt bar in early 2017]											
684	Building services installation	27-02-17	25-05-17	63 days	[Gantt bar in early 2017]											
685	FS installation	27-02-17	25-05-17	63 days	[Gantt bar in early 2017]											
686	Testing & commissioning (EL, FS, P&D)	26-05-17	22-06-17	20 days	[Gantt bar in early 2017]											
687	Refuse Handling System Installation	01-06-17	25-08-17	61 days	[Gantt bar from early to mid 2017]											
688	Make Available RCP, JCP & Refuse Rooms to Direct Contractor	01-06-17	01-06-17	0 days	[Gantt bar in early 2017]											
689	Make Available Vehicular Access for Transportation of Equipment	01-06-17	01-06-17	0 days	[Gantt bar in early 2017]											
690	Installation Works	02-06-17	18-08-17	56 days	[Gantt bar from early to mid 2017]											
691	Trial Run by Refuse Collection Vehicle	21-08-17	25-08-17	5 days	[Gantt bar in mid 2017]											
692	Supermarket	14-03-16	02-08-17	366 days	[Gantt bar from early 2016 to late 2017]											
693	RC Structure	14-03-16	05-01-17	218 days	[Gantt bar from early 2016 to early 2017]											
694	Excavation for the footing	14-03-16	09-04-16	18 days	[Gantt bar in early 2016]											
695	Footing construction	11-04-16	23-05-16	30 days	[Gantt bar in early 2016]											
696	Footing to G/F beam and slab construction	17-05-16	29-08-16	69 days	[Gantt bar from early 2016 to late 2016]											
697	G/F - roof construction	26-08-16	03-11-16	57 days	[Gantt bar from late 2016 to early 2017]											
698	Planter and Parapet Wall	12-11-16	05-12-16	20 days	[Gantt bar in late 2016]											
699	Water Tank	23-11-16	05-01-17	36 days	[Gantt bar from late 2016 to early 2017]											
700	Finishing Works	06-01-17	02-08-17	148 days	[Gantt bar from early 2017 to mid 2017]											
701	Roof Finishing Works	06-01-17	28-07-17	145 days	[Gantt bar from early 2017 to mid 2017]											
702	Internal Finishing Works	06-01-17	21-07-17	140 days	[Gantt bar from early 2017 to mid 2017]											
703	External Wall Finishing Works	15-02-17	02-08-17	120 days	[Gantt bar from early 2017 to mid 2017]											
704	Building services installation	26-01-17	15-06-17	100 days	[Gantt bar from early 2017 to mid 2017]											
705	Building services installation	26-01-17	26-05-17	86 days	[Gantt bar from early 2017 to mid 2017]											

Construction of Public Rental Housing Development at Tung Chung Area 56

ID	Task Name	Start	Finish	Duration	2014				2015			2016			2017				
					1st Quarter		4th Quarter		3rd Quarter			2nd Quarter			1st Quarter			4th Qua	
					Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep		
706	Make Available water tanks & pump rooms to NSC	06-02-17	06-02-17	0 days															
707	FS installation & water pump installation	06-02-17	06-03-17	21 days															
708	Testing & commissioning (EL, FS, P&D)	07-03-17	15-06-17	72 days															
709	Wet Market	09-11-15	16-08-17	473 days															
710	RC structure (Detailed Programmed to be Submitted Separately)	09-11-15	23-03-17	370 days															
711	Excavation for the footing	09-11-15	01-12-15	20 days															
712	Zone 1	19-11-15	11-11-16	261 days															
713	ELSW & Footing construction	19-11-15	30-12-15	33 days															
714	Footing to G/F beam and slab construction and UG Drainage Works	31-12-15	09-05-16	94 days															
715	G/F - M/F construction	11-05-16	18-07-16	45 days															
716	M/F - roof construction	18-07-16	06-10-16	60 days															
717	Planter wall & other RC features on roof	07-10-16	11-11-16	30 days															
718	Zone 2	05-12-15	21-11-16	255 days															
719	ELSW & Footing construction	05-12-15	16-01-16	30 days															
720	Footing to G/F beam and slab construction and UG Drainage Works	18-01-16	19-05-16	90 days															
721	G/F - roof construction	20-05-16	27-09-16	90 days															
722	Planter wall & other RC features on roof	28-09-16	21-11-16	45 days															
723	Zone 3	22-12-15	29-12-16	273 days															
724	ELSW & Footing construction	22-12-15	29-01-16	28 days															
725	Footing to G/F beam and slab construction and UG Drainage Works	30-01-16	20-05-16	80 days															
726	G/F - roof construction	23-05-16	28-09-16	90 days															
727	Planter wall & other RC features on roof	05-11-16	29-12-16	45 days															
728	Zone 4 (After Removal of Tower Crane for Block 2)	18-06-16	23-03-17	209 days															
729	ELSW & Footing construction	18-06-16	09-07-16	14 days															
730	Footing to G/F beam and slab construction and UG Drainage Works	11-07-16	30-08-16	35 days															
731	G/F - M/F construction	31-08-16	31-10-16	50 days															
732	M/F - roof construction	31-10-16	17-12-16	42 days															
733	Planter wall & other RC features on roof	06-01-17	16-03-17	50 days															
734	F.S. Water Tank and Roof Slab	06-01-17	23-03-17	55 days															
735	Finishing Works	25-10-16	16-08-17	219 days															
736	Roof Finishing Works	15-02-17	16-08-17	130 days															
737	Internal Finishing Works	25-10-16	29-06-17	185 days															
738	External Wall Finishing Works	09-01-17	24-07-17	140 days															
739	Building services installation	07-10-16	07-04-17	140 days															
740	Builder's works & BS installation in G/F TX Rm + Switch Rm	25-10-16	01-11-16	7 days															
741	Clear 1.5m area on external U/G cable	01-11-16	01-11-16	0 days															
742	Make available vehicular access to Tx Rm	01-11-16	01-11-16	0 days															
743	Handover Main Switch Room to NSC	01-11-16	01-11-16	0 days															
744	Handover TX Rm to CLP	01-11-16	01-11-16	0 days															
745	CLP installation in TX Rm. & lead-in cables wiring	01-11-16	16-12-16	45 edays															
746	Power energisation to Wet Market by CLP	16-12-16	03-01-17	14 days															
747	Builder's works & BS installation in M/F Genset Rm	01-11-16	16-11-16	14 days															
748	Handover Genset Rm to NSC	16-11-16	16-11-16	0 days															
749	Genset installation by NSC	17-11-16	21-12-16	30 days															
750	Builder's works & BS installation in M/F FS Pump Rm + G/F FS Control Rm	06-02-17	07-03-17	22 days															
751	Handover M/F FS Pump Rm + G/F FS Control Rm to NSC	07-03-17	07-03-17	0 days															
752	FS Installation & Water Pump Installation	08-03-17	07-04-17	23 days															
753	Handover Chiller Plant Room to NSC	07-10-16	07-10-16	0 days															
754	Handover AHU Room and Fan Room to NSC	05-12-16	05-12-16	0 days															
755	AHU System Installation	07-12-16	07-04-17	90 days															
756	Section 6 - Fit-out to Wet Market	17-12-14	24-08-17	719 days															
757	Confirmation for the Scope for Fitting-out of Wet Market	17-12-14	17-12-14	0 days															

Construction of Public Rental Housing Development at Tung Chung Area 56

ID	Task Name	Start	Finish	Duration	2014			2015			2016			2017						
					1st Quarter			4th Quarter			3rd Quarter			2nd Quarter			1st Quarter			4th Qua
					Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep	Jan	May	Sep			
758	Issue Drawings for Fitting-out of Wet Market (SI - A053)	17-12-14	17-12-14	0 days																
759	Wet & Dry Stall Installation	29-10-16	14-06-17	170 days																
760	GMS Bulkhead & Signage Installation	21-12-16	26-07-17	155 days																
761	Associated Building Services Installation	25-11-16	07-04-17	100 days																
762	Inspection & Handover	27-07-17	24-08-17	21 days																
763	Section 7 - Estate Road, EVA, Carriageway & Basement Car park	25-08-14	25-08-17	813 days																
764	Basement car park	25-08-14	21-08-17	809 days																
765	RC structure	25-08-14	21-03-17	701 days																
766	Pipe pile installation & grout curtain	25-08-14	21-01-15	120 days																
767	Pumping test and report submission	22-01-15	07-02-15	15 days																
768	Submit as-built record to CM for Approval	09-02-15	11-03-15	22 days																
769	Submit ICU14 & Obtain CM's Approval for Bulk Excavation Work	11-03-15	02-04-15	22 edays																
770	ELS for the footing/Plate Load Test	07-04-15	07-09-15	109 days																
771	Submit as-built ELS record to CM	22-08-15	07-09-15	12 days																
772	Obtain consent for footing construction	05-08-15	07-09-15	24 days																
773	Footing construction	08-09-15	27-11-15	65 days																
774	Footing - G/F construction	13-11-15	25-05-16	143 days																
775	Dismantling of ELSW	14-10-15	01-06-16	173 days																
776	Waterproofing / Underground Drainage / On Grade Slab	02-06-16	27-02-17	200 days																
777	Link Bridge	29-12-16	21-03-17	60 days																
778	Green Platform	29-12-16	14-03-17	55 days																
779	Finishes & building services	10-02-17	21-08-17	136 days																
780	Car park wall & ceiling finishes	28-02-17	12-06-17	74 days																
781	Building services & plant rooms installation	10-02-17	05-05-17	60 days																
782	Car park floor finishes	16-05-17	12-07-17	42 days																
783	Elevated walkway, bicycle parking & planter finishes	16-05-17	21-08-17	70 days																
784	Painting works & signage	16-05-17	07-08-17	60 days																
785	Building services installation	09-03-17	06-07-17	85 days																
786	Builder's works & BS installation in Fan Rm,FS Pump rm,Sump Pit Rm & Switch Rm	09-03-17	26-04-17	35 days																
787	Make Available the Fan Room to NSC	26-04-17	26-04-17	0 days																
788	Air Exhaust System Installation	27-04-17	06-07-17	50 days																
789	Make Available the Pump & Sump Pit Room to NSC	05-05-17	05-05-17	0 days																
790	FS pipe & water pump installation	08-05-17	04-07-17	42 days																
791	Make Available the Switch Room to NSC	26-04-17	26-04-17	0 days																
792	E & M installation	27-04-17	06-07-17	50 days																
793	Estate Road, EVA & Carriageway	10-04-15	25-08-17	633 days																
794	Issuance of U/G drainage & Utilities/run-in Connections location to Road L16	10-04-15	10-04-15	0 days																
795	Make Available to Electrical sub-contractor the underground cable ducts and draw pits	03-05-17	03-05-17	0 days																
796	Make available to the Town Gas Co. the area along the external underground route	02-06-17	02-06-17	0 days																
797	Make available to the FTNS the area along the external underground route	03-04-17	03-04-17	0 days																
798	Underground Drainage & Utilities Installation (Details to be submitted separately)	15-10-15	02-06-17	440 days																
799	EVA	06-02-17	30-06-17	104 days																
800	Paving works	05-06-17	25-08-17	60 days																
801	External furniture	05-06-17	25-08-17	60 days																
802	Signage & Road marking	05-05-17	24-08-17	80 days																
803	CCTV for U/G Drainage System	05-06-17	25-08-17	60 days																
804	Section 8 - Temporary Sewage Pumping Station including Rising Mains	25-11-14	22-02-17	608 days																
805	Submit the EO to CM and EPD Approval	25-11-14	25-11-14	0 days																
806	Rising Mains for Sewage Pumping	15-08-16	13-10-16	46 days																
807	Plant & M&E Installation of the TSPS (4 months)	16-06-16	13-10-16	86 days																
808	Testing & Commissioning of the TSPS (more than 2 months)	14-10-16	22-02-17	104 days																
809	Section 9 - Remaining Works	20-08-15	22-08-17	539 days																



APPENDIX D

Waste Flow Table

**Temporary Sewage Pumping Station
Ancillary to Tung Chung Area 56 Public Housing Development
Waste Flow Table**

Month	Estimated Annual Quantities of Inert C&D Materials (in '000 Kg)					Estimated Quantities of C&D Waste					
	Total Quantity Generated	Suitable for Recycled Aggregates	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Metals	Paper/cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse	Timber
	(a)	(b)	(c)	(d)	(e=a-b-c-d)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000litre)	(in '000 Kg)	(in '000 Kg)
2014											
November	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.160	0.000
December	4.910	0.000	0.000	0.000	4.910	0.000	0.000	0.000	0.000	5.830	0.000
2015											
January	5.970	0.000	0.000	0.000	5.970	0.000	0.000	0.000	0.000	2.880	0.000
February	4.540	0.000	0.000	0.000	4.540	0.000	0.000	0.000	0.000	2.450	0.000
March	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.480	0.000
April	1097.040	0.000	0.000	0.000	1097.040	0.000	0.000	0.000	0.000	1.930	0.000
May	467.250	0.000	0.000	0.000	467.250	0.000	0.000	0.000	0.000	6.520	0.000
June	1237.690	0.000	0.000	0.000	1237.690	0.000	0.000	0.000	0.000	9.720	0.000
July	61.480	0.000	0.000	0.000	61.480	0.000	0.000	0.000	0.000	8.680	0.000
August	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.210	0.000
September	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.170	0.000
October	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.180	0.000
November	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.940	0.000
December	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.380	0.000
2016											
January	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.820	0.000
February	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.230	0.000
March	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.640	0.000
April	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.100	0.000
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.830	0.000
June	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.310	0.000
July	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	8.820	0.000
August	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.690	0.000
September	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.880	0.000
October	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.720	0.000
November	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.580	0.000
December	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.020	0.000
2017											
January	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.680	0.000
February	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.450	0.000
March	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.190	0.000
April	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.640	0.000
May	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.420	0.000
June	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3.600	0.000
July	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.180	0.000
August	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.740	0.000
Grand Total	2878.880	0.000	0.000	0.000	2878.880	0.000	0.000	0.000	0.000	189.070	0.000

Notes: (1) The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.

(2) Plastics refer to plastic bottles / containers, plastic sheets / foam from packaging material



APPENDIX E

Environmental Licenses and Permits

Summary of Environmental Licences and Permits Application and Status

Environmental Permit (EP)

EP No.	EP Holder	Date of EP Issued	Expiry Date	Area Coverage	Status
EP-452/2013	Hong Kong Housing Authority	6 Jun 2013	N/A	TSPS Only	Active

Notification of Carrying Out Notifiable Works under Air Pollution Control (Construction Dust) Regulation

Notification Ref. No.	Area Coverage	Valid Since	Expiry Date
367052	Entire Site of the Contract (include TSPS)	13 Nov 2013	N/A

Billing Account for Disposal of Construction Works

Billing Account No.	Area Coverage	Valid Since	Expiry Date
7018949	Entire Site of the Contract (include TSPS)	16 Dec 2013	N/A

Chemical Waste Producer Registration

Waste Producer No.	Area Coverage	Major Chemical Waste Type	Valid Since	Expiry Date
5213-950-H2913-43	Entire Site of the Contract (include TSPS)	Spent lubricant, Spent Flammable Liquid, Spent organic solvent, contaminated rags	19 Nov 2014	N/A

Wastewater Discharge Licence

Licence Number	Area Coverage	Valid Since	Expiry Date
WT00018218-2014	Entire Site of the Contract (include TSPS)	30 Jan 2014	31 Jan 2019

Construction Noise Permit (CNP)

CNP Number	Area Coverage	Valid Since	Expiry Date	Current Status
GW-RS1162-14	Entire Site of the Contract (include TSPS)	24 Oct 2014	23 Apr 2015	Expired
GW-RS0418-15	Entire Site of the Contract (include TSPS)	24 Apr 2015	23 Oct 2015	Expired
GW-RS1088-15	Entire Site of the Contract (include TSPS)	24 Oct 2015	23 Apr 2016	Expired
GW-RS1379-15	Entire Site of the Contract (include TSPS)	29 Dec 2015	28 Jun 2016	Expired
GW-RS0525-16	Entire Site of the Contract (include TSPS)	29 Jun 2016	28 Dec 2016	Expired, as replaced by GW-RS0796-16
GW-RS0796-16	Entire Site of the Contract (include TSPS)	29 Jul 2016	28 Jan 2017	Expired, as replaced by GW-RS0010-17
GW-RS0010-17	Entire Site of the Contract (include TSPS)	29 Jan 2017	28 Jun 2017	Expired, as replaced by GW-RS0489-17
GWORS0489-17	Entire Site of the Contract (include TSPS)	29 Jun 2017	28 December 2017	Active



APPENDIX F

Statistics on Environmental Complaints, Notification of Summons and Successful Prosecutions

Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Reporting period	Complaints	Notifications of Summons	Successful Prosecutions
34 th Reporting Month (1 August 2017 – 31 August 2017)	0	0	0
Cumulative Statistics (19 Nov 2014 – 31 August 2017)	0	0	0