Alpha
Consulting Engineers Pte Ltd

PROJECT QUALITY PLAN

THE SPRINGSIDE (PHASES 10A, 10B & 10C) COMPRISING OF 37+2 UNITS OF 3 STOREY TERRACE DWELLING HOUSES WITH ATTIC, SHOWHOUSES, MDF AND GREEN SPACE AT JALAN ULU SELETAR/SEMBAWANG ROAD

For

KALLANG DEVELOPMENT PTE LTD

Copy No.	1

Prepared By: Khor Bee Khoon

Authorised By: Choong Choon Guan

Date: 15 November 2013

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SECTION 1

QUALITY PLAN CONTROL AND DISTRIBUTION

1.1 List of Copy Holders

Copy No.	Copy Holder	Date of Issue
1	6144-PQP File	15 November 2013

1.2 Revision Record

Revision	Date of Issue	Section Reference	Page(s)	Remarks
0	15 Nov 2013	1 to 11	29	+1 page (section 4.1- overall programme)

SECTION 2

PROJECT INFORMATION

2.1 Project Description

Type of Development	Residential

Statistics of Development	
Site Area, m²	-
Nett Floor Area, m²	-
Gross Floor Area, m²	10110.24m² (for 39 units)
Covered Carpark, m²	-
No. of Covered Carpark Lots	-
No. of Apartments/Houses	39 nos.
No. of Beds (for Hospitals)	-
No. of Guestroom (for Hotels)	-
No. of Blocks / No. of Storeys	3 Storey with attic
Green Mark Category	-
No. of Phases	1

2.2 Project Cost

M&E Services Cost Plan (S$ x 1M)										
Services	EI	ACVI	LEI	FFAI	PSI	SPFI				
Estimate	-	-	-	-	-	-				
Awarded	1.95	1.3	-	-	1.6	0.2				

Total Project Construction Cost (S$ x1M)			
	Site Clearance	Piling Works	Main Contract
Estimate	-	-	-
Awarded	-	-	30.9

Site Clearance shall include earth work, soil improvement, service diversion and termination.

2.3 Scope of Works

2.3.1 Scope of Consultancy Services

Conceptual/Schematic Design	✓
Detailed Design	✓
Tender Documentation	✓
Tender Evaluation	✓
Contract Supervision	✓
M&E Costing	✓
Submissions to Authority	✓

(✓*where applicable*)

2.3.2 Scope of M&E Services

ELECTRICAL	✓	AIR CONDITIONING	✓	SPRINKLER		SANITARY	✓	SWIMMING POOL	✓
LIFT		MECHANICAL VENTILATION	✓	FIRE ALARM		COLD WATER	✓	STEAM BOILER	
ESCALATOR		MECHANICAL SMOKE EXTRACT		HOSEREEL		HOT WATER	✓	FUEL STORAGE	
PABX		COMPUTER A/C		WET RISER		TOWN GAS			
SECURITY		BST CARPARK EXH		DRY RISER		LPG GAS			
TELELIFT		HEATING				MEDICAL GAS			
DATA COMM.									
FLUSHFLOOR TRUNKING									

(✓*where applicable*)

2.3.3 Submission to Relevant Authorities by Others

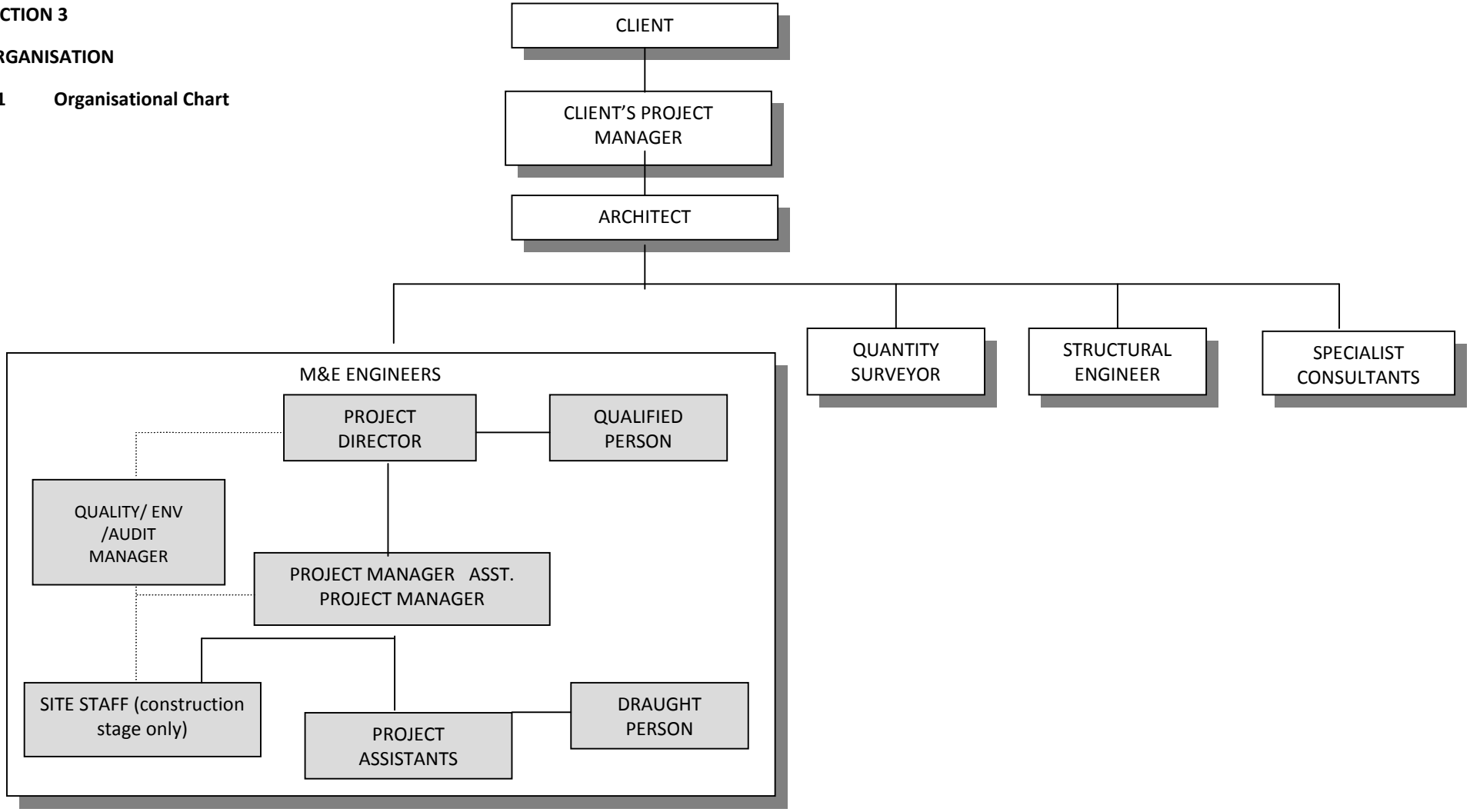
EJECTOR & DIVERTER		SUMP PUMP		FUEL OIL TANK		LIFT & ESCALATOR		PRESSURE VESSEL		HOISTS		FOAM	

(✓*where applicable*)

SECTION 3

ORGANISATION

3.1 Organisational Chart



SECTION 3

ORGANISATION

3.2 ACEPL's Project Team Member

TITLE		NAME
Project Director		Choong Choon Guan
Qualified Person	Mechanical	Choong Choon Guan
	Electrical	Loh Fook Yuen
Project Manager		Khor Bee Khoon
Assistant Project Manager		Lim Chai Hoon
Project Assistant (Mech)		-
Project Assistant (Elect)		Goh Xiang Fei
Draughtsperson		Common Pool
Resident Engineer (M&E)		-
Assistant Resident Engineer (M&E)		-
Clerk-of-Work (M&E)		Anthony Ng

3.3 Client/Client's Representatives

Client:- Kallang Development Pte Ltd

Address:- 65 Chulia Street #45-01
OCBC Centre
Singapore 049513

Tel:- 6538 2372

Fax:- 6535 5217

Client's Representatives:- SE Alliance Management Pte Ltd

Name of Company	Contact Person	Contact
SE Alliance Management Pte Ltd	Name: Lim Ling Huey Position: Project Manager	Tel: 6538 2372 Fax: 6535 5217 Handphone: 9107 0743 Email: LHLim@singapore-e.com.sg
	Name: Position:	Tel: Fax: Handphone: Email:
	Name: Position:	Tel: Fax: Handphone: Email:
	Name: Position:	Tel: Fax: Handphone: Email:
	Name: Position:	Tel: Fax: Handphone: Email:

3.4 Other Consultants (Local)

Function / Name of Company	Contact Person	Contact
Architect ADDP Architects LLP	Name: Richard Lai/Lim Mei Ling Position: Senior Principal/Architect/ Architectural Associate	Tel: 6220 2153 Fax: 6325 4918 Handphone: Email: richard@addp.sg/ springside10@addp-doprojects.com
Quantity Surveyor Northcroft Lim Consultants Pte Ltd	Name: Tam Mun Chuan Position: Senior Quantity Surveyor	Tel: 6220 7188 Fax: 6222 0868 Handphone: Email: 1047@northcroft.com.sg
Structural Engineer DE Consultants (S) Pte Ltd	Name: Megan Hoon/Toh Bin Tee Position: Director/Senior Engineer	Tel: 6227 3900 Fax: 6227 2909 Handphone: 9772 8068 Email: megan.hoon@de-consultants.com/ toh.bt@de-consultants.com
Interior Designer -	Name: Position:	Tel: Fax: Handphone: Email:
Lighting Consultant -	Name: Position:	Tel: Fax: Handphone: Email:
Acoustic Consultant -	Name: Position:	Tel: Fax: Handphone: Email:
_____	Name: Position:	Tel: Fax: Handphone: Email:
_____	Name: Position:	Tel: Fax: Handphone: Email:

3.4 Other Consultants (Overseas) – **NOT USED**

Function / Name of Company	Contact Person	Contact
Architect	Name: Position:	Tel: Fax: Handphone: Email:
M&E Consultant	Name: Position:	Tel: Fax: Handphone: Email:
Quantity Surveyor	Name: Position:	Tel: Fax: Handphone: Email:
Structural Engineer	Name: Position:	Tel: Fax: Handphone: Email:
Interior Designer	Name: Position:	Tel: Fax: Handphone: Email:
Lighting Consultant	Name: Position:	Tel: Fax: Handphone: Email:
Acoustic Consultant	Name: Position:	Tel: Fax: Handphone: Email:
_____	Name: Position:	Tel: Fax: Handphone: Email:

3.5 Contractors/Sub-Contractors

Function / Name of Company	Contract *	Contact Person	Contact
Main Contractor Array Engineering Construction Pte Ltd		Name: Lai Kim Seong Position: Managing Director	Tel: 6256 5122 Fax: 6252 7511 Handphone: 9631 4350 Email: arrpl.spring@array.enrg.com.sg
Air Conditioning & Ventilation Installation Sub-Contractor Aston Air Control Pte Ltd	DSC	Name: Patrick Chan Position: Project Manager	Tel: 6298 0682 Fax: 6291 2628 Handphone: 9641 0513 Email: patrick_chan@astonair.com
Plumbing & Sanitary Installation Sub-Contractor Acacia Engineering Pte Ltd	DSC	Name: Tok Kiah Tong/S. Mani Position: Managing Director/Project Manager	Tel: 6453 0500 Fax: 6453 0400 Handphone: 9754 6350 /9459 4073 Email: S.mani@acacia.com.sg / kttok@acacia.com.sg
Electrical Installation Sub-Contractor Kurihara Kogyo Co. Ltd	DSC	Name: Peter Ng Ah Soon Position: Manager	Tel: 6271 9863 Fax: 6278 4475 Handphone: 9062 1656 Email: peterng@kurihara.com.sg
Lift & Escalator Installation Sub-Contractor -		Name: Position:	Tel: Fax: Handphone: Email:
Fire Fighting & Alarm Installation Sub-Contractor -		Name: Position:	Tel: Fax: Handphone: Email:
Swimming Pool Filtration Plant Installation Sub-Contractor Fluidra Singapore Pte Ltd	DSC	Name: Gary Siah Position: General Manager	Tel: 6382 0130 Fax: 6382 0136 Handphone: 9008 3305 Email: gsiah@astrapool.sg
Carpark System Installation Sub-Contractor -		Name: Position:	Tel: Fax: Handphone: Email:
_____		Name: Position:	Tel: Fax: Handphone: Email:

** Type of Contract* - *NSC (Nominated Sub-Contract)*
- *DSC (Domesticated Sub-Contract)*
- *DC (Direct Contract)*
- *NS (Nominated Supplier)*

3.6 Authorities

Authorities/Department	Contact Person	Tel/Fax Nos./E-mail
SP PowerGrid:		
(a) LT Reticulation	Mr Dennis Woo (Planning Officer)	6378 8552/9656 4001
	Mr Tony Yeo (Project Officer)	6240 9263/9852 8983
SP Services:		
(a) Customer Supply	Ms Michelle/Mr Mervyn	6671 7194
(b) Installation	-	
(c) Meter Section	-	
(d) Road Lighting	-	
TFCC:		
(a) SCV	Mr Bernard Lim	9061 5104
(b) SingTel	Mr Jino	9755 7263
(c) IDA	Ms Alicia Theng	6211 1301
BCA:		
(a) Building Plan	-	
(b) Green Mark	-	
FSSD:		
(a) Building Plan	-	
(b) M&E Plan	-	
PUB (Water Supply) Network Dept:		
(a) Water Conservation		
(b) Plumbing Plan	Mr Leow	9757 9498
(c) Diversion	Mr Michael Tan	9681 2433
(d) NEWater		
PUB Water Reclamation (Network) Dept:		
(a) Building Plan/CBPU	-	
(b) M&E Plan	-	
(c) Diversion	-	
City Gas Pte Ltd:		
(a) Planning/Submission	-	
(b) Installation/Inspection	-	
PowerGas Pte Ltd		
(a) Diversion	-	
NEA (Pollution Control)		
(a) Planning/Submission	-	
(b) Inspection	-	

SECTION 4

PROGRAMME

4.1 Overall Programme – Refer to attached

ID	TASK NAME	MONTHS	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
1.	Preliminary Planning																									
2.	Planning Submission																									
3.	Detail Design																									
4.	BP Submission																									
5.	BP Submission (Amendments)																									
6.	Tender Period for Piling																									
7.	Tender Period for Sub-Structure																									
8.	Tender Period for Super-Structure																									
9.	Piling Period																									
10.	Sub-Structure Construction Period																									
11.	Super-Structure Construction Period																									
12.	TOP																									
13.	CSC																									

SPRINGSIDE DEVELOPMENT P10
KEY MILESTONE DATES
BASED ON ARRAY CATCH UP PROGRAMME DATED 20 JULY 2012

ID	DESCRIPTION	START	END
	UNITS		
31	**10B (37 - 53)**	**16/06/12**	**31/08/13**
70	M&E - UNDERGROUND	04/07/12	01/08/12
36	STRUCTURE - GROUND SLAB	08/08/12	30/08/12
44	STRUCTURE - ROOF BEAM	26/11/12	12/12/12
49	ARCHITECTURE	13/12/12	27/07/13
68	M&E	04/07/12	26/08/13
97	**10A (18 - 24)**	**20/07/12**	**25/05/13**
136	M&E - UNDERGROUND	26/07/12	23/08/12
102	STRUCTURE - GROUND SLAB	21/08/12	05/09/12
110	STRUCTURE - ROOF BEAM	17/11/12	28/11/12
115	ARCHITECTURE	29/11/12	29/04/13
134	M&E	26/07/12	16/05/13
163	**10C (17 - 35)**	**24/07/12**	**30/09/13**
202	M&E - UNDERGROUND	04/08/12	07/09/12
168	STRUCTURE - GROUND SLAB	13/09/12	03/10/12
176	STRUCTURE - ROOF BEAM	29/12/12	15/01/13
181	ARCHITECTURE	16/01/13	03/09/13
200	M&E	04/08/12	24/09/13
229	**10C (1-15)**	**01/08/12**	**16/08/13**
268	M&E - UNDERGROUND	07/08/12	04/09/12
234	STRUCTURE - GROUND SLAB	01/09/12	18/09/12
242	STRUCTURE - ROOF BEAM	04/12/12	14/12/12
247	ARCHITECTURE	15/12/12	12/07/13
266	M&E	07/08/12	10/08/13
295	**10B (2-16)**	**30/07/12**	**29/10/13**
334	M&E - UNDERGROUND	10/08/12	13/09/12
300	STRUCTURE - GROUND SLAB	19/09/12	11/10/12
308	STRUCTURE - ROOF BEAM	23/01/13	08/02/13
313	ARCHITECTURE	09/02/13	24/09/13
332	M&E	10/08/12	23/10/13
	COMMON AREA		
361	SEWER WORKS	27/08/12	12/12/12
366	SEWER CONNECTION	08/11/12	12/12/12
367	MDF ROOM - UNTIL HANDOVER SINGTEL	29/11/12	05/04/13
374	GREEN AREA	04/06/13	24/12/13
383	ROADWORKS AND EXTERNAL WORKS	06/10/12	23/11/13
421	SERVICES TURN ON - POWER	16/09/13	05/11/13
427	SERVICES TURN ON - WATER	24/09/13	13/11/13
435	RI INSPECTION	14/11/13	19/11/13
439	TOP INSPECTION	12/12/13	13/12/13
444	HANDOVER WITH TOP	04/03/14	04/03/14

SECTION 4

PROGRAMME

4.2 Authority Submission Status for M&E Services - 1st Submission

Service	Authority	Original Submission		Comments/Resubmission						Approval/
		Scheduled	Actual	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	Clearance
Application for Electricity Supply	SP Services Ltd									
Power Supply Substation	SP PowerGrid Ltd									31 July 2013
Metering Layout	SP Services Ltd									
Sanitary Installation	PUB Water Reclamation (Network) Dept									8 Nov 2013
Domestic Water Supply	PUB (Water Supply) Network Dept									15 Dec 2011
Gas Supply Installation	City Gas Pte Ltd									-
Air Conditioning & Ventilation Inst.	FSSD									-
Fire Fighting & Alarm Installation	FSSD									-
Telephone Installation	TFCC									Ph10A – 7 Oct 2012 Ph10B – 21 Nov 2012 Ph10C – 21 Sep 2012
Broadband Co-axial Cable System (BCS)										
Fuel Storage	FSSD									-
	NEA (Pollution Control)									-

SECTION 4

PROGRAMME

4.3 Authority Submission Status for M&E Services (Amendments) - 2nd Submission – NOT USED

Service	Authority	Original Submission		Comments/Resubmission						Approval/
		Scheduled	Actual	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	Clearance
Application for Electricity Supply	SP Services Ltd									
Power Supply Substation	SP PowerGrid Ltd									
Metering Layout	SP Services Ltd									
Sanitary Installation	PUB Water Reclamation (Network) Dept									
Domestic Water Supply	PUB (Water Supply) Network Dept									
Gas Supply Installation	City Gas Pte Ltd									
Air Conditioning & Ventilation Inst.	FSSD									
Fire Fighting & Alarm Installation	FSSD									
Telephone Installation	TFCC									
Broadband Co-axial Cable System (BCS)	Starhub Cable Vision									
Fuel Storage	FSSD									
	NEA (Pollution Control)									

SECTION 5

PROJECT RECORDS

5.1 List of Internal Files

Standard Files

File Ref:		File Ref:	
- Owner	✓	- Architect	✓
- Authorities	✓	- Other Consultants	✓
- Contractors	✓	- CC	✓
- CF	✓	- PQP/QSP	✓

Project Files to be initiated by PM as and when required

File Ref:		File Ref:		File Ref:	
PP/VO	✓				

(✓*where applicable*)

SECTION 5

PROJECT RECORDS

5.2 Filing of Drawings

The following team members shall take charge of filing of drawings, stamping "SUPERSEDED" drawings, etc.

Description	Team Member
Incoming Architectural Floor Plans	Incoming soft copy in server
Incoming Architectural Sketches/Details	Incoming soft copy in server
Incoming Structural Drawings	Incoming soft copy in server
M&E Drawings	
- Electrical Installation	Goh Xiang Fei
- Lift & Escalator Installation	-
- Air Conditioning & Ventilation Installation	Khor Bee Khoon
- Fire Fighting & Alarm Installation	-
- Plumbing & Sanitary Installation	Khor Bee Khoon
- Swimming Pool & Filtration Installation	Khor Bee Khoon
Other Drawings	

SECTION 6

INTERFACING

6.1 Method of Interface

Description	Method of Interface	
Client's Review & Approval	M&E Design Report	✓
	Pre-planned meeting at fixed intervals	✓
	Telefax, letter and telephone	✓
	Email	✓
Interface With External Design Teams	M&E Design Report	✓
	Pre-planned meeting at fixed intervals	✓
	Telefax, letter and telephone	✓
	Email	✓
Interface Between Internal Design Teams	Telephone	✓
	Email	✓
	Internal Project Team Meeting	✓
	Circulation of Information	✓

(✓*where applicable*)

SECTION 6

INTERFACING

6.2 Internal Design Interface

Item No.	Description*	Required From	Required By	Date Required	Remarks
1	Power Requirement on Mechanical item	KBK	CHC	15 July 2011	

** Information required by INTERNAL DESIGN TEAM MEMBERS*

SECTION 6

INTERFACING

6.3 Circulation of Documents to External Parties

	Code: A - Approval Required C - For Comments I - For Information Only	Client/ Client Rep.	Client's Project Manager	Architect	Structural Engineer	Quantity Surveyor	
1.	**Letters/Fax:**						
a.	Project Design	A	-	I	I	I	
b.	Project Administration	I	-	I	I	I	
c.	Project Cost Estimate/Contract Cost	A	-	-	-	-	
2.	**Drawings**						
a.	Outline Design Drgs.	C	-	C	I	I	
b.	Sketch Design Drgs.	-	-	C	I	I	
c.	Final Design Drgs.	C	-	C	I	I	
d.	Shop Drawings	C	-	A	-	I	
e.	As Built Drgs.	I	-	I	-	-	
3.	**Other Document**						
a.	Specification	C	-	I	I	I	
b.	Tender Document	C	-	I	I	I	
c.	Tender Evaluation Report	C	-	I	I	I	
d.	Design Report	C	-	C	I	I	
e.	Progress Report	I	-	I	I	I	
f.	Financial Report	-	-	-	-	-	
g.	Minutes of Meeting	I	-	I	I	I	
h.	Inspection Report	I	-	-	-	-	
i.	Testing & Comm. Report	I	-	-	-	-	
j.	O & M Manual	I	-	-	-	-	

SECTION 7

WORK AUTHORISATION

Activity \ Authorised Signatories	PD	QP	PM	AE	SS
General Correspondences with Client	✓				
General Correspondences with Other Consultants	✓				
M&E Cost Estimate Report	✓				
M&E Design Report		✓			
Check Prints		✓	✓		
Tender Drawing Approval		✓			
Tender Specification Approval		✓			
List of Tenderers	✓				
Tender Questionnaires	✓				
Tender Reports	✓				
Draft Letter of Award			✓		
Review of Contractor's Shop Drawing			✓		
Review of Contractor's Technical Submittal			✓		
Review of Contractor's Sample Submittal			✓		
Contractor's Request for Deviation			✓		
Progress Payment Valuation Form	✓				
Final Account Valuation			✓		
Draft Variation Order			✓		
Engineer/Architect's Instruction/Direction	✓				
Site Instruction/Direction					✓
Correspondence/Submission to Authorities		✓			

(✓*where authorised*)

Key to abbreviations:-

PD : Project Director
QP : Qualified Person
PM : Project Manager/Assistant Project Manager
AE : Assistant Engineer
SS : ACEPL Site Staff

SECTION 8

DESIGN INPUT & METHODOLOGY

8.1 List of Client's Standards, Reference Documents or Brief – NOT USED

ITEM	KEPT BY

8.2 List of Applicable Code of Practice and Regulations

Services	Title of Code of Practice/Standard
Electrical Wiring	CP5
Lightning Protection System	SS 555
Emergency Voice Communication System	-
Air Conditioning & Ventilation Installation	CP 13
Lift & Escalator Installation	-
Sprinkler System	-
Wet Riser System	-
Automatic Fire Alarm System	-
Sanitary System	Code of Practice on Sanitary & Sewerage Works
Plumbing System	CP 48
Town Gas/LPG Supply System	-
Boiler and Steam Supply System	-
Mechanical Smoke Control System	-

SECTION 8

DESIGN INPUT & METHODOLOGY

8.3 List of Design Guide or Handbook Used – NOT USED

Carrier's Handbook of Air Conditioning System Design

ASHRAE Handbooks

Institute of Plumbing's Plumbing Services Design Guide

8.4 List of Pre-Consultation and Waiver – NOT USED

S/N	Description	Date of Application	Date of Approval	Remarks
1	*Clause number in Code of Practice for (Services) which require clarification or waiver. Consultation Ref No. Waiver Ref. No.			
2	*Clause number in Code of Practice for (Services) which require clarification or waiver. Consultation Ref No. Waiver Ref. No.			
3	*Clause number in Code of Practice for (Services) which require clarification or waiver. Consultation Ref No. Waiver Ref. No.			

*To fill in actual information

8.5 List of Applicable Quality System Procedures 4.3

Alpha Consulting Engineers Pte Ltd's Quality Management System Procedures

Section	Title	✓ where applicable
M1	Preparation of Consultancy Offer	✓
M2	Project Commissioning and Service Agreement	✓
M3	Design Control	✓
M4	Design Change Control	✓
M5	Tender Process and Evaluation	✓
M6	Authority Submission	✓
M7	Construction Process Control	✓
M8	Testing and Commissioning	✓
S1	Document Control	✓
S2	Documentation of Quality & Environmental Management System Procedure	✓
S3	Documentation of Project Quality Plan	✓
S4	Specification Control	✓
S5	Library Control	✓
S6	Archive Control	✓
S7	Filing Control	✓
S8	Drawing Control	✓
S9	Administration Control	✓
S10	Purchasing Control	
S11	Training Control	
S12	Computer Control	
QE1	Quality & Environmental System Audit	✓
QE2	Feedback Reporting	✓
QE3	Clients Feedback	✓
QE4	Management Review	✓

8.6 List of Software Used For Design/Analysis

DESCRIPTION/ PACKAGE NAME	VERSION	SUPPLIER/ SOURCE	PURPOSE	
Calculux	2.30	Philips	Lighting design	
Cophos	3.31	Zumtobel	Lighting design	
Carrier E20-II	3.21	Carrier	Programme for determination of heat load, duct size and its losses, etc.	✓
Gensize 2	2.1	Onan	Generator sizing	
Lift Traffic	-	Alpha Consulting Engineers Pte Ltd	Lift traffic calculation	
Econdial	2.5	Merlin Gerlin	Design for low voltage network	
Hyena	4.00.1	ACADS-BSG	Fire Sprinkler & Hydrant Analysis	
Fault Level Calculation	-	Alpha Consulting Engineers Pte Ltd	Calculation of voltage drop and fault level	

(✓*where applicable*)

SECTION 9

ENVIRONMENTAL CONSIDERATIONS

9.1 Sustainable Design Features / Criteria

Item	Remarks
Green Mark criteria	NA/Exempted
Green Design Features	NA

9.2 Site PPE Requirement

The necessary Personal Protective Equipment (detailed below) shall be provided by the main contractor / Company in accordance to the site EHS requirements prior to the site monitoring.

PPE	✓ where applicable
Safety Helmet	✓
Safety Shoes	✓
Eye Protection	
Ear Protection	
Safety Harness / Belt	
Others:	

9.3 Site Emergency Preparedness

Site staff shall comply with the site emergency preparedness and response procedure, established by the main contractor / owner, which shall include the following details.

Items	✓ where applicable
Evacuation Route	✓
Emergency Exit	✓
Assembly Point	✓
Emergency Contact List / Person	Mr Lai Kim Seong
Alarm system / methods	-

SECTION 9

ENVIRONMENTAL CONSIDERATIONS

9.4 Reporting of Environmental Non-conformances – NOT USED

When encountering environmental non-conformances, Site Staff shall be responsible to feedback to the main contractor.

9.5 List of Applicable Environmental management system Procedures – NOT USED

Alpha Consulting Engineers Pte Ltd's Environmental Management System Procedures

Section	Title	✓ where applicable
E1	Aspect / Impact Identification, Risk Assessment & Risk Control	
E2	Identifying Legal & Other Requirements	
E3	Objectives, Targets & Programmes	
E4	Communication	
E5	Emergency Preparedness & Response	
E6	Monitoring & Measurement	
E7	Control of Air & Noise Pollution	
E8	Management of Wastes	

SECTION 10

CLIENT'S REQUIREMENTS

10.1 List of Output Required by Client:-

Item	* Remarks
M&E Design Report	C
M&E Cost Estimate Report	A
Pre-Qualification of Tenderers	A
Tender Documents	C
Tender Report	C
Payment Valuation for QS	A
Certificates of Supervision for TOP/CSC	Re

* *Remarks*

A: for approval *C: for comment* *I: for Information* *Re: for record*

Other purposes and for action: please specify.

10.2 Specific Procedures Required By Client *(If applicable)* – **NOT USED**

SECTION 11

LIST OF SUB-JOB

11.1 List of Sub-Job Numbers – NOT USED

Sub Job No	Description	Allocation Details