Alpha
Engineering Consultant

PROJECT QUALITY PLAN

RESIDENTIAL DEVELOPMENT AT PECK HAY ROAD (VIDA)

For

M/S WAN-LI DEVELOPMENTS PTE LTD

Copy No.	

Prepared By: Chim Heng Leong

Authorised By: Tan L S

Date: 26 October 2005

TABLE OF CONTENTS

SECTION	DESCRIPTION
-	**TITLE PAGE**
-	**TABLE OF CONTENTS**
1	**QUALITY PLAN CONTROL AND DISTRIBUTION**
1.1	List of Copy Holders
1.2	Revision Record
2	**PROJECT INFORMATION**
2.1	Project Description
2.2	Project Cost
2.3	Scope of Works
3	**ORGANISATION**
3.1	Organisation Chart
3.2	AEC's Project Team Member
3.3	Client/Client's Representative
3.4	Other Consultants
	Local Overseas – Not Used
3.5	Contractor/Sub-Contractors
3.6	Authorities
4	**PROGRAMME**
4.1	Overall Programme
4.2	Authority Submission Status for M&E Services – 1st Submission
4.3	Authority Submission Status for M&E Services (Amendment)
	– 2nd Submission – Not Used

TABLE OF CONTENTS

SECTION	DESCRIPTION
5	**PROJECT RECORDS**
5.1	List of Internal Files
5.2	Filing of Drawings
6	**INTERFACING**
6.1	Method of Interface
6.2	Internal Design Interface – Not Used
6.3	Circulation of Documents to External Parties
7	**WORK AUTHORISATION**
8	**DESIGN INPUT AND METHODOLOGY**
8.1	List of Client's Standards, Reference Documents or Brief – Not Used
8.2	List of Applicable Code of Practice and Regulations
8.3	List of Design Guide or Handbook Used
8.4	List of Applicable Quality System Procedures
8.5	List of Software Used for Design/Analysis – Not Used
9	**CLIENT'S REQUIREMENTS**
9.1	List of Output Required by Client
9.2	Specific Procedures Required by Client
10	**LIST OF SUB-JOB**
10.1	List of Sub-Job Numbers – Not Used

SECTION 1

QUALITY PLAN CONTROL AND DISTRIBUTION

1.1 List of Copy Holders

Copy No.	Copy Holder	Date of Issue
1	1126-PQP File	5 June 1997
2	Chim Heng Leong	5 June 1997

1.2 Revision Record

Revision	Date of Issue	Section Reference	Page(s)	Remarks
1/0	5 June 1997	Section 1 - Section 9	24	1st Issue
1	27 January 1999	Section 1 - Section 10	26	-
2	26 October 2005	Section 1 – Section 10	26	-

SECTION 2

PROJECT INFORMATION

2.1 Project Description

Type of Development	Residential Development

Statistics of Development	
Site Area, m²	3,409.20
Nett Floor Area, m²	9,539.03
Gross Floor Area, m²	9,546.28
Covered Carpark, m²	2,145
No. of Covered Carpark Lots	138
No. of Apartments/Houses	137
No. of Beds (for Hospitals)	-
No. of Guestroom (for Hotels)	-
No. of Blocks / No. of Storeys	1/20
No. of Phases	3

2.2 Project Cost

M&E Services Cost Plan (S$ x 1M)										
Services	EI	ACVI	LEI	FFAI	PSI	SPFI				
Estimate	2.5	1.5	0.6	0.23	1.5	0.25				
Awarded	1.18	-	0.395	0.195	-	-				

Total Project Construction Cost (S$ x1M)			
	Site Clearance	Piling Works	Main Contract
Estimate	-	1.0	22.87
Awarded	-	-	24.4

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

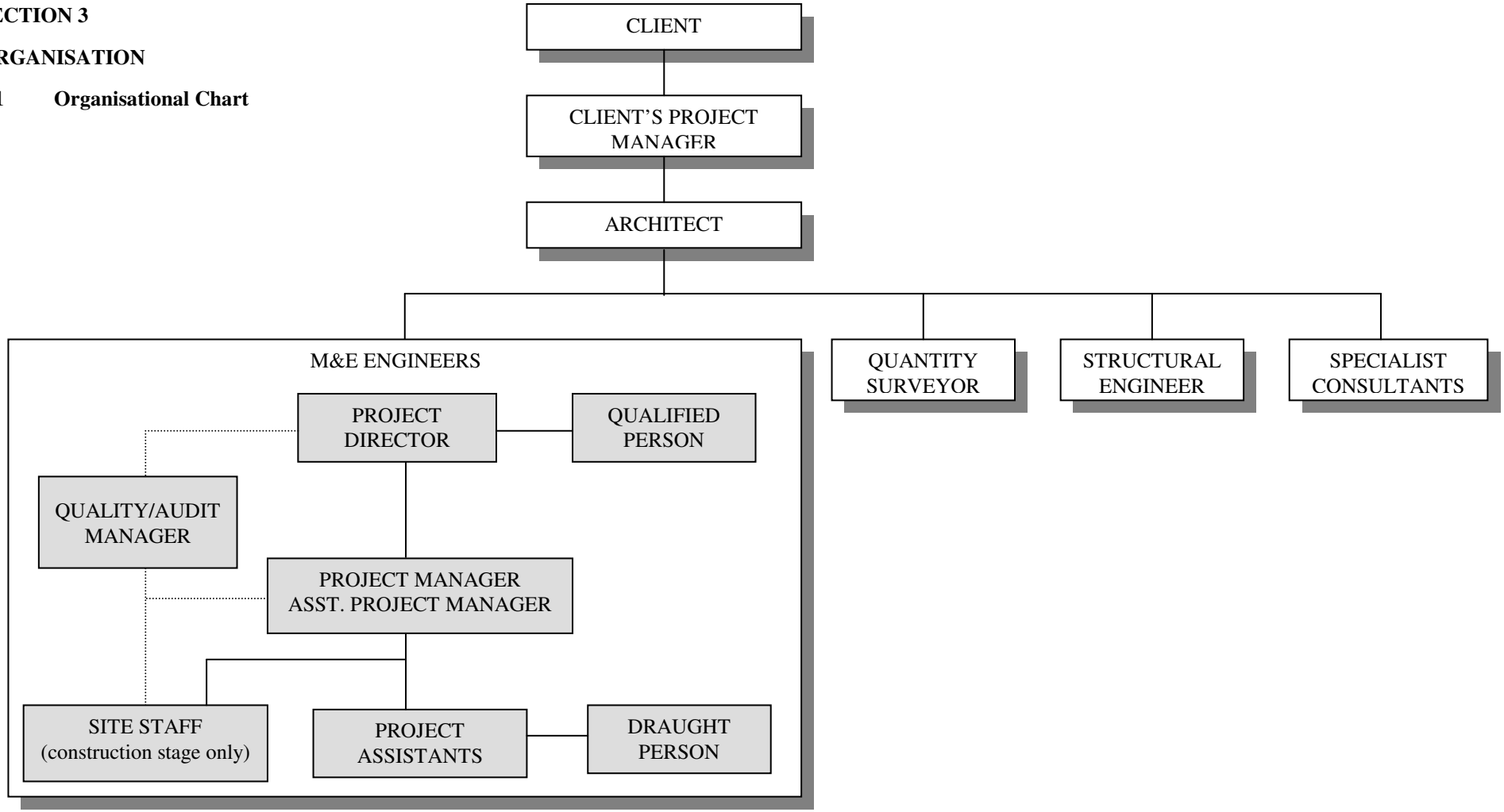
EJECTOR & DIVERTER		SUMP PUMP	✓	FUEL OIL TANK		LIFT & ESCALATOR		PRESSURE VESSEL		HOISTS		FOAM	

(✓*where applicable*)

SECTION 3

ORGANISATION

3.1 Organisational Chart



SECTION 3

ORGANISATION

3.2 AEC's Project Team Member

TITLE		NAME
Project Director		Tan Lai siong
Qualified Person	Mechanical	Andrew Loh
	Electrical	Tan Lai Siong
Project Manager		Chim Heng Leong
Assistant Project Manager		Loh Fook Yuen
Project Assistant (Mech)		-
Project Assistant (Elect)		Lim Chai Hoon
Draughtsperson		Common Pool
Resident Engineer (M&E)		-
Assistant Resident Engineer (M&E)		-
Clerk-of-Work (M&E)		-

3.3 Client/Client's Representatives

Client:- Wan-Li Development Pte Ltd

Address:- 14 Scotts Road
#06-00 Far East Plaza
Singapore 228213

Tel:- 6235 2411

Fax:- 6235 3316

Client's Representatives:-

Name of Firm	Contact Person	Contact
Wan-Li Developments Pte Ltd	Name: Mr Leo Cheung Position: Project Manager	Tel: 6234 2411 Fax: 6235 3316 Handphone: - Email: leocheung@fareast.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 Firm	Contact Person	Contact
Architect TAA Architects	Name: Mr Eric Tay Poh Loong Position: Associate	Tel: 6438 1221 Fax: 6438 3611 Handphone: - Email: taapl@magiz.com.sg
Quantity Surveyor Fraklin + Andrews Pte Ltd	Name: Ms Lilian Ong Position: Quantity Surveyor	Tel: 6396 3381 Fax: 6396 3563 Handphone: - Email: lilian-fa@mottmacc-sing-com.sg
Structural Engineer Ecas-EJ Consultants Pte Ltd	Name: Mr Franky Lim Position: Engineer	Tel: 6533 6788 Fax: 6536 0229 Handphone: - Email: ejcon@starhub.net.sg
Interior Designer -	Name: Position:	Tel: Fax: Handphone: Email:
Lighting Consultant -	Name: Position:	Tel: Fax: Handphone: Email:
Acoustic Consultant -	Name: Position:	Tel: Fax: Handphone: Email:
Landscape Consultant DLQ Design Pte Ltd	Name: Mr Wong Chee Yuen Position: Designer	Tel: 6738 0171 Fax: 6738 3124 Handphone: - Email: wongcheeyuen@dlqdesign.com
-	Name: Position:	Tel: Fax: Handphone: Email:

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

Function / Name of Firm	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 Firm	Contract *	Contact Person	Contact
Main Contractor Hexacon Construction Pte Ltd		Name: Mr Lim Eng Chye Position: Project Manager	Tel: 6734 6927 Fax: 6253 1638 Handphone: 9380 7866 Email: limec@hexacon.com.sg
Air Conditioning & Ventilation Installation Sub-Contractor		Name: Position:	Tel: Fax: Handphone: Email:
Plumbing & Sanitary Installation Sub-Contractor		Name: Position:	Tel: Fax: Handphone: Email:
Electrical Installation Sub-Contractor King Wan Construction Pte Ltd		Name: Mr Hugo Choong Position: Project Manager	Tel: 6368 4300 Fax: 6365 7675 Handphone: Email: kwnet@singnet.com.sg
Lift & Escalator Installation Sub-Contractor Schindler Lifts (S) Pte Ltd		Name: Mr Ivan Ho Position: Project Manager	Tel: 6748 8611 Fax: 6846 2212 Handphone: Email:
Fire Fighting & Alarm Installation Sub-Contractor Mark Grow Engineering Pte Ltd		Name: Ms Linda Foo Position: Contract Manager	Tel: 6265 8911 Fax: 6265 0004 Handphone: - Email:markgrow@singnet.com.sg
Swimming Pool Filtration Plant Installation Sub-Contractor		Name: Position:	Tel: Fax: Handphone: Email:
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) Sub-Station	Mr Chin Yoke Fah	Tel: 6831 8556
(b) Diversion		
SP Services:		
(a) Customer Supply	Mr Rick Lim	Tel: 68238008
(b) Installation		
(c) Meter Section		
(d) Road Lighting		
TFCC:		
(a) SCV		
(b) SingTel		
(c) IDA		
BCA:		
(a) Building Plan		
FSSD:		
(a) Building Plan		
(b) M&E Plan	Mr Alroy Tan Kim Hoe	Tel: 6838 6417
PUB (Water Supply) Network Dept:		
(a) Water Conservation	Mr David Loh	Tel: 6731 3518
(b) Plumbing Plan	Mr Kuan Kim Yaw	Tel: 6731 3544
(c) Diversion		
PUB Water Reclamation (Network) Dept:		
(a) Building Plan/CBPU	Mr David Lim B H	Tel: 6731 9629
(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 ATTACHMENT

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																									

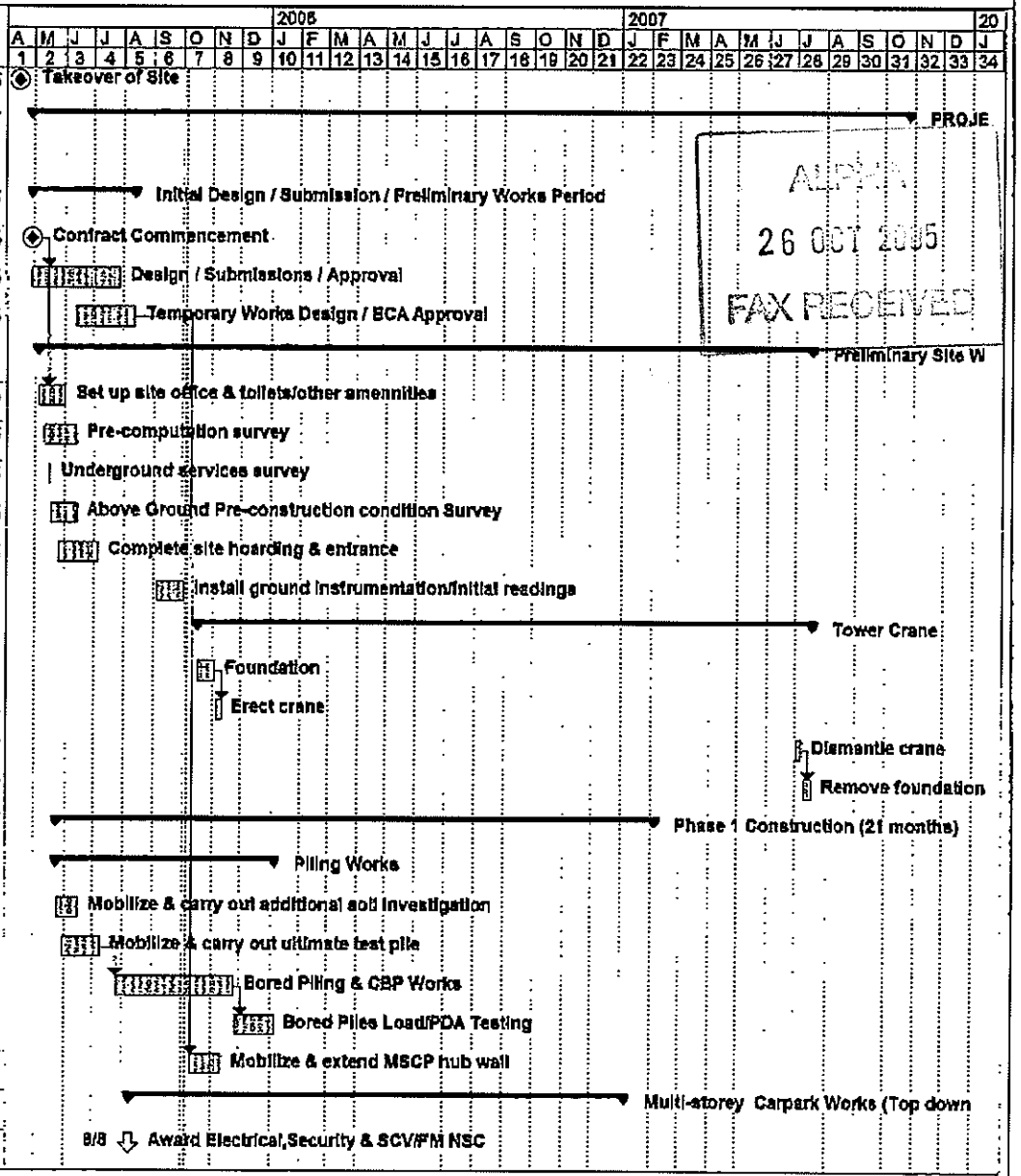
Attn: Chai Hoon

VIDA At Peck Hay Road

MASTER PROGRAMME

HEXACON

ID	Task Name	Duration	Start	Finish
1	Takeover of Site	0 days	Apr 15 '05	Apr 15 '05
2	PROJECT (Award to TOP)	656 days	Apr 28 '05	Oct 27 '07
3				
4	Initial Design / Submission / Preliminary Works	78 days	Apr 28 '05	Aug 12 '05
5	Contract Commencement	0 days	Apr 28 '05	Apr 28 '05
6	Design / Submissions / Approval	66 days	Apr 28 '05	Jul 27 '05
7	Temporary Works Design / BCA Approval	45 days	Jun 13 '05	Aug 12 '05
8	Preliminary Site Works	577 days	May 5 '05	Jul 17 '07
9	Set up site office & toilets/other amennities	21 days	May 5 '05	Jun 1 '05
10	Pre-computation survey	25 days	May 11 '05	Jun 13 '05
11	Underground services survey	2 days	May 16 '05	May 17 '05
12	Above Ground Pre-construction condition Surve	20 days	May 17 '05	Jun 13 '05
13	Complete site hoarding & entrance	30 days	May 25 '05	Jul 5 '05
14	Install ground instrumentation/initial readings	21 days	Sep 5 '05	Oct 2 '05
15	Tower Crane	468 days	Oct 17 '05	Jul 17 '07
16	Foundation	14 days	Oct 17 '05	Nov 3 '05
17	Erect crane	5 days	Nov 4 '05	Nov 10 '05
18	Dismantle crane	5 days	Jul 2 '07	Jul 6 '07
19	Remove foundation	7 days	Jul 9 '07	Jul 17 '07
20	Phase 1 Construction (21 months)	445 days	May 24 '05	Feb 5 '07
21	Piling Works	164 days	May 24 '05	Jan 5 '06
22	Mobilize & carry out additional soil investigati	17 days	May 24 '05	Jun 15 '05
23	Mobilize & carry out ultimate test pile	30 days	May 30 '05	Jul 8 '05
24	Bored Piling & CBP Works	90 days	Jul 25 '05	Nov 24 '05
25	Bored Piles Load/PDA Testing	30 days	Nov 25 '05	Jan 5 '06
26	Mobilize & extend MSCP hub wall	25 days	Oct 10 '05	Nov 11 '05
27	Multi-storey Carpark Works (Top down con	371 days	Aug 8 '05	Jan 5 '07
28	Award Electrical,Security & SCV/FM NSC	0 days	Aug 8 '05	Aug 8 '05



ALPHA
26 OCT 2005
FAX RECEIVED

Date: 03 Oct 2005

Task | Task Progress | Critical Task | Critical Task Progress | Milestone | Summary | Rolled Up Task | Rolled Up Critical Task | Rolled Up Milestone | Rolled Up Progress | Split | External Tasks | Project Summary | Group By Summary | Deadline

Page 1

001 → → → ALPHA ENGRG HEX-VIDA@PeckHay FAX 67342364 WED 17:18 05 10 26

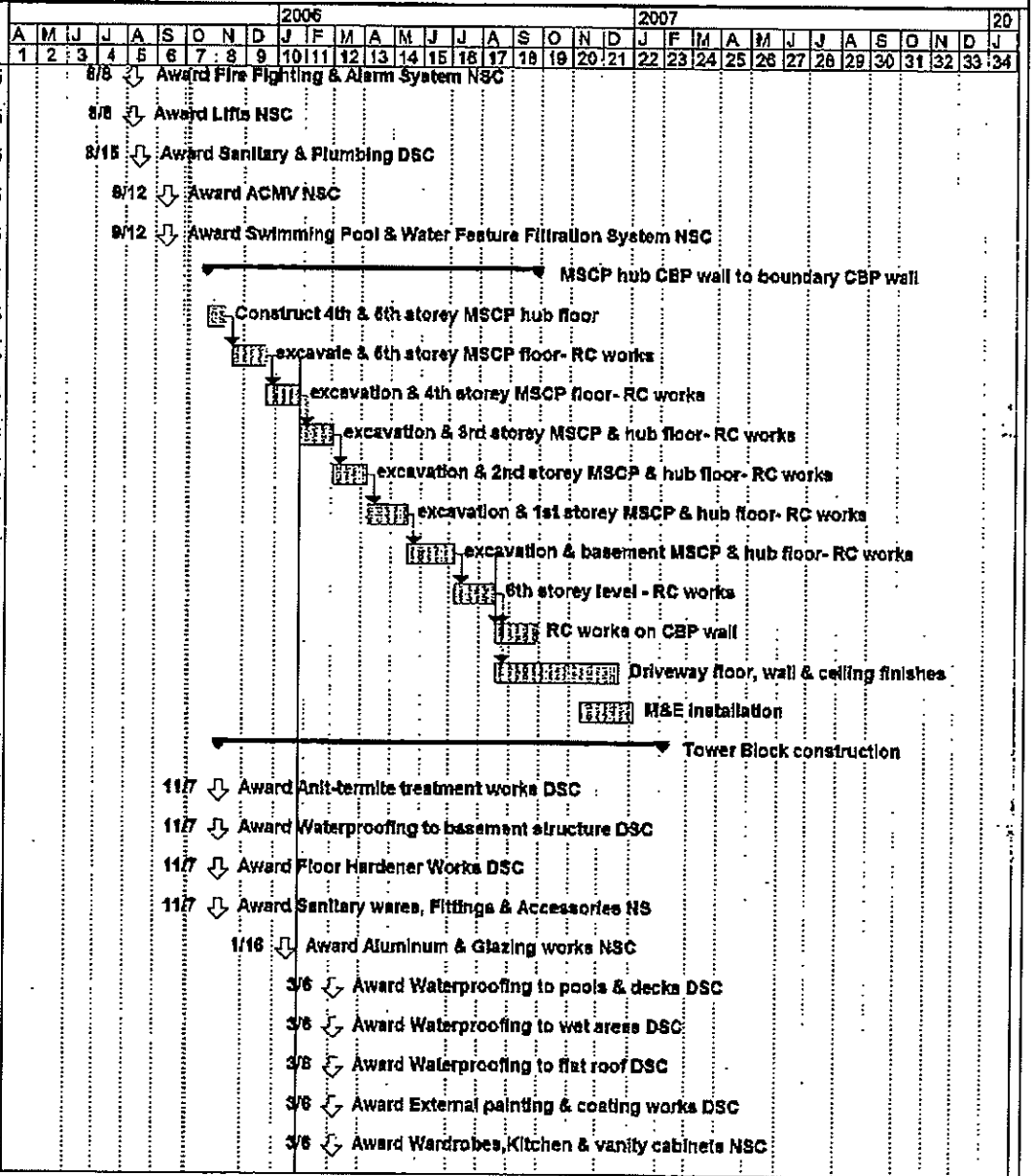
002 →→→ ALPHA ENGRG HEX-VIDA@PeckHay 26/10 05 WED 17:19 FAX 67342364

VDA At Peck Hay Road

MASTER PROGRAMME

HEXACON

ID	Task Name	Duration	Start	Finish
29	Award Fire Fighting & Alarm System NSC	0 days	Aug 8 '05	Aug 8 '05
30	Award Lifts NSC	0 days	Aug 8 '05	Aug 8 '05
31	Award Sanitary & Plumbing DSC	0 days	Aug 15 '05	Aug 15 '05
32	Award ACMV NSC	0 days	Sep 12 '05	Sep 12 '05
33	Award Swimming Pool & Water Feature Filtn	0 days	Sep 12 '05	Sep 12 '05
34	**MSCP hub CBP wall to boundary CBP wa**	**244 days**	**Oct 24 '05**	**Sep 28 '06**
35	Construct 4th & 5th storey MSCP hub flo	14 days	Oct 24 '05	Nov 10 '05
36	excavate & 5th storey MSCP floor- RC w	25 days	Nov 18 '05	Dec 22 '05
37	excavation & 4th storey MSCP floor- RC	25 days	Dec 23 '05	Jan 26 '06
38	excavation & 3rd storey MSCP & hub floc	25 days	Jan 27 '06	Mar 2 '06
39	excavation & 2nd storey MSCP & hub flo	25 days	Mar 3 '06	Apr 6 '06
40	excavation & 1st storey MSCP & hub floc	30 days	Apr 7 '06	May 18 '06
41	excavation & basement MSCP & hub floc	35 days	May 19 '06	Jul 6 '06
42	6th storey level - RC works	30 days	Jul 7 '06	Aug 17 '06
43	RC works on CBP wall	30 days	Aug 18 '06	Sep 28 '06
44	Driveway floor, wall & ceiling finishes	90 days	Aug 18 '06	Dec 21 '06
45	M&E Installation	40 days	Nov 13 '06	Jan 5 '07
46	**Tower Block construction**	**325 days**	**Nov 7 '05**	**Feb 5 '07**
47	Award Anit-termite treatment works DSC	0 days	Nov 7 '05	Nov 7 '05
48	Award Waterproofing to basement structure I	0 days	Nov 7 '05	Nov 7 '05
49	Award Floor Hardener Works DSC	0 days	Nov 7 '05	Nov 7 '05
50	Award Sanitary wares, Fittings & Accessorie	0 days	Nov 7 '05	Nov 7 '05
51	Award Aluminum & Glazing works NSC	0 days	Jan 16 '06	Jan 16 '06
52	Award Waterproofing to pools & decks DSC	0 days	Mar 6 '06	Mar 6 '06
53	Award Waterproofing to wet areas DSC	0 days	Mar 6 '06	Mar 6 '06
54	Award Waterproofing to flat roof DSC	0 days	Mar 6 '06	Mar 6 '06
55	Award External painting & coating works DS	0 days	Mar 6 '06	Mar 6 '06
56	Award Wardrobes,Kitchen & vanity cabinets	0 days	Mar 6 '06	Mar 6 '06



Date: 03 Oct 2006

Task · Task Progress · Critical Task · Critical Task Progress · Milestone · Summary · Rolled Up Task · Rolled Up Critical Task · Rolled Up Milestone · Rolled Up Progress · Split · External Tasks · Project Summary · Group By Summary · Deadline

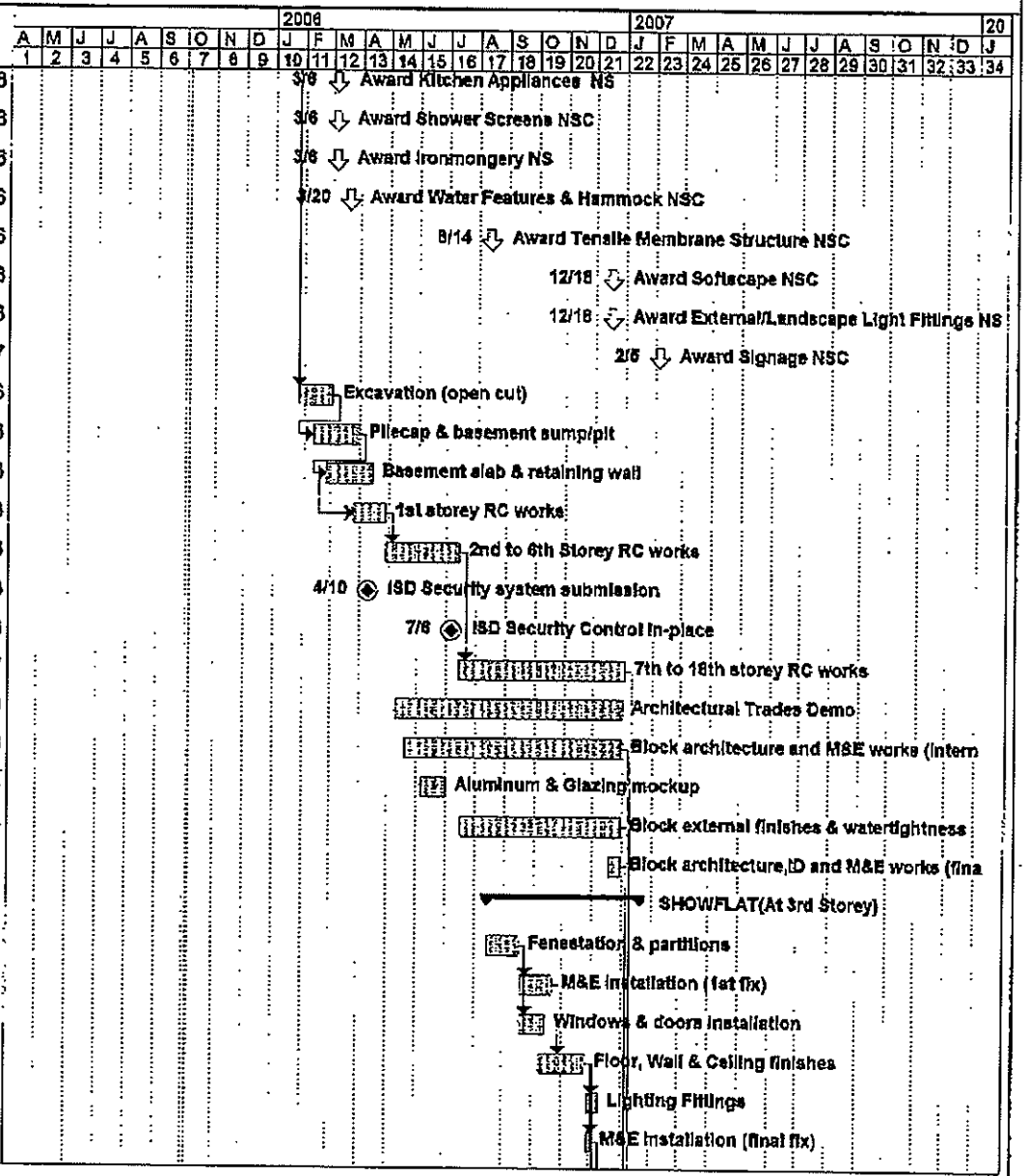
003
→→→ ALPHA ENGRG
HEX-VIDA@PeckHay
26/10 05 WED 17:19 FAX 67342364

VIDA At Peck Hay Road

MASTER PROGRAMME

HEXACON

ID	Task Name	Duration	Start	Finish
57	Award Kitchen Appliances NS	0 days	Mar 6 '06	Mar 6 '06
58	Award Shower Screens NSC	0 days	Mar 6 '06	Mar 6 '06
59	Award Ironmongery NS	0 days	Mar 6 '06	Mar 6 '06
60	Award Water Features & Hammock NSC	0 days	Mar 20 '06	Mar 20 '06
61	Award Tensile Membrane Structure NSC	0 days	Aug 14 '06	Aug 14 '06
62	Award Softscape NSC	0 days	Dec 18 '06	Dec 18 '06
63	Award External/Landscape Light Fittings NS	0 days	Dec 18 '06	Dec 18 '06
64	Award Signage NSC	0 days	Feb 5 '07	Feb 5 '07
65	Excavation (open cut)	25 days	Jan 27 '06	Mar 2 '06
66	Pilecap & basement sump/pit	35 days	Feb 10 '06	Mar 30 '06
67	Basement slab & retaining wall	35 days	Feb 24 '06	Apr 13 '06
68	1st storey RC works	25 days	Mar 24 '06	Apr 27 '06
69	2nd to 6th Storey RC works	55 days	Apr 28 '06	Jul 13 '06
70	ISD Security system submission	0 days	Apr 10 '06	Apr 10 '06
71	ISD Security Control In-place	0 days	Jul 6 '06	Jul 6 '06
72	7th to 18th storey RC works	122 days	Jul 14 '06	Jan 1 '07
73	Architectural Trades Demo	170 days	May 8 '06	Dec 29 '06
74	Block architecture and M&E works (internal	161 days	May 19 '06	Dec 29 '06
75	Aluminum & Glazing mockup	20 days	Jun 5 '06	Jun 30 '06
76	Block external finishes & watertightness	120 days	Jul 17 '06	Dec 29 '06
77	Block architecture,ID and M&E works (final fi	10 days	Dec 18 '06	Dec 29 '06
78	SHOWFLAT(At 3rd Storey)	115 days	Aug 14 '06	Jan 18 '07
79	Fenestation & partitions	25 days	Aug 14 '06	Sep 15 '06
80	M&E installation (1st fix)	25 days	Sep 18 '06	Oct 20 '06
81	Windows & doors installation	20 days	Sep 18 '06	Oct 13 '06
82	Floor, Wall & Ceiling finishes	35 days	Oct 9 '06	Nov 24 '06
83	Lighting Fittings	10 days	Nov 27 '06	Dec 8 '06
84	M&E installation (final fix)	5 days	Nov 27 '06	Dec 1 '06



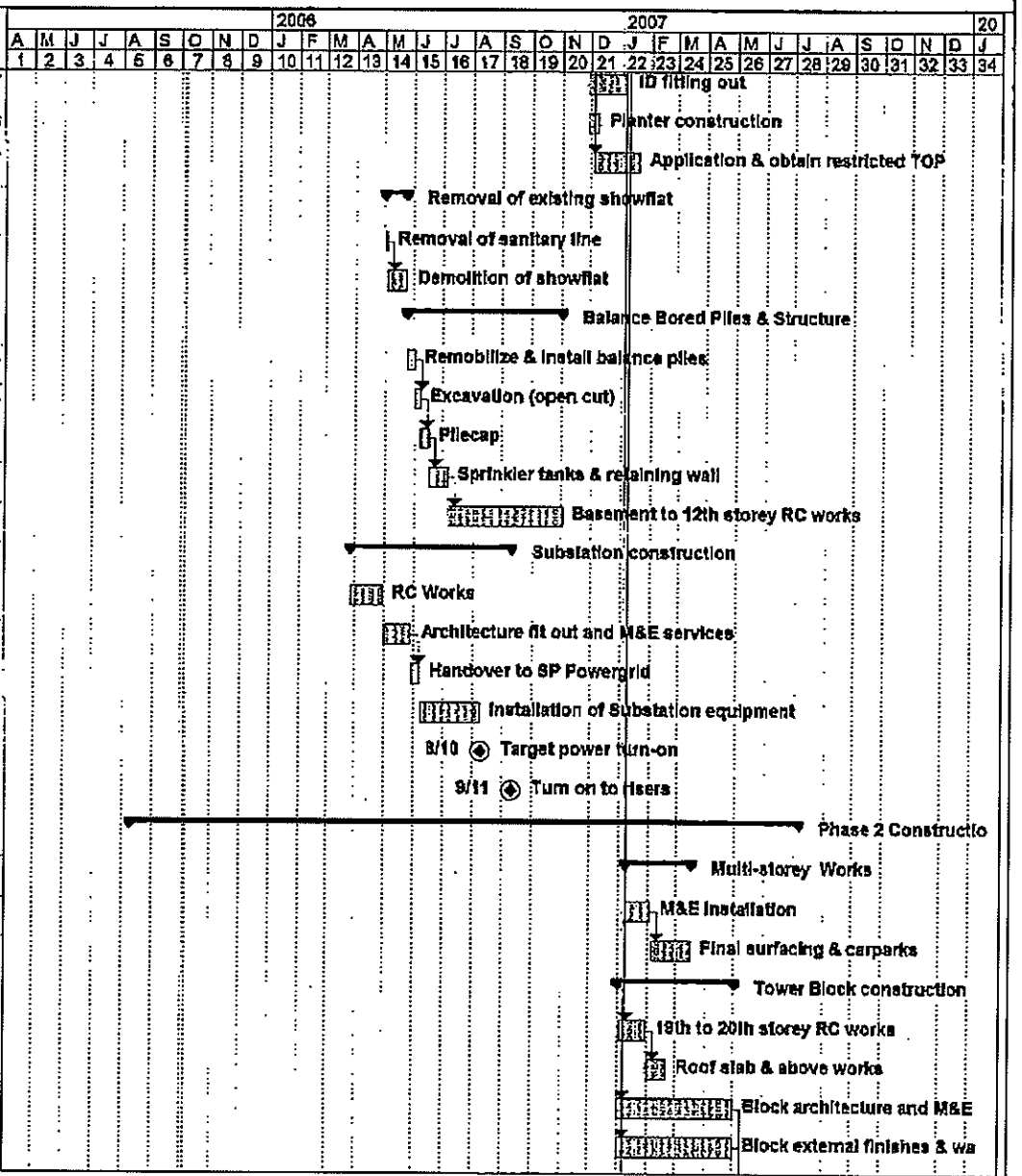
Date: 03 Oct 2005

Task | Task Progress | Critical Task | Critical Task Progress | Milestone | Summary | Rolled Up Task | Rolled Up Critical Task | Rolled Up Milestone | Rolled Up Progress | Split | External Tasks | Project Summary | Group By Summary | Deadline

28/10 05 WED 17:20 FAX 67342364 HEX-VIDA@PeckHay +++ ALPHA ENGRG 004

MASTER PROGRAMME

ID	Task Name	Duration	Start	Finish
85	ID fitting out	30 days	Nov 27 '06	Jan 5 '07
86	Planter construction	10 days	Nov 27 '06	Dec 8 '06
87	Application & obtain restricted TOP	35 days	Dec 4 '06	Jan 19 '07
88	**Removal of existing showflat**	**16 days**	**May 2 '06**	**May 23 '06**
89	Removal of sanitary line	2 days	May 2 '06	May 3 '06
90	Demolition of showflat	14 days	May 4 '06	May 23 '06
91	**Balance Bored Piles & Structure**	**116 days**	**May 24 '06**	**Nov 1 '06**
92	Remobilize & install balance piles	7 days	May 24 '06	Jun 1 '06
93	Excavation (open cut)	3 days	Jun 2 '06	Jun 6 '06
94	Pilecap	7 days	Jun 7 '06	Jun 15 '06
95	Sprinkler tanks & retaining wall	14 days	Jun 16 '06	Jul 5 '06
96	Basement to 12th storey RC works	85 days	Jul 6 '06	Nov 1 '06
97	**Substation construction**	**120 days**	**Mar 27 '06**	**Sep 11 '06**
98	RC Works	25 days	Mar 27 '06	Apr 28 '06
99	Architecture fit out and M&E services	21 days	May 1 '06	May 29 '06
100	Handover to SP Powergrid	6 days	May 30 '06	Jun 6 '06
101	Installation of Substation equipment	45 days	Jun 7 '06	Aug 8 '06
102	Target power turn-on	0 days	Aug 10 '06	Aug 10 '06
103	Turn on to risers	0 days	Sep 11 '06	Sep 11 '06
104	**Phase 2 Construction (25 months)**	**600 days**	**Aug 10 '05**	**Jul 6 '07**
105	**Multi-storey Works**	**50 days**	**Jan 8 '07**	**Mar 16 '07**
106	M&E Installation	20 days	Jan 8 '07	Feb 2 '07
107	Final surfacing & carparks	30 days	Feb 5 '07	Mar 16 '07
108	**Tower Block construction**	**86 days**	**Jan 1 '07**	**Apr 30 '07**
109	19th to 20th storey RC works	20 days	Jan 2 '07	Jan 29 '07
110	Roof slab & above works	15 days	Jan 30 '07	Feb 19 '07
111	Block architecture and M&E works (internal	86 days	Jan 1 '07	Apr 30 '07
112	Block external finishes & watertightness	86 days	Jan 1 '07	Apr 30 '07



Date: 03 Oct 2006

Task | Task Progress | Critical Task | Critical Task Progress | Milestone | Summary | Rolled Up Task | Rolled Up Critical Task | Rolled Up Milestone | Rolled Up Progress | Split | External Tasks | Project Summary | Group By Summary | Deadline

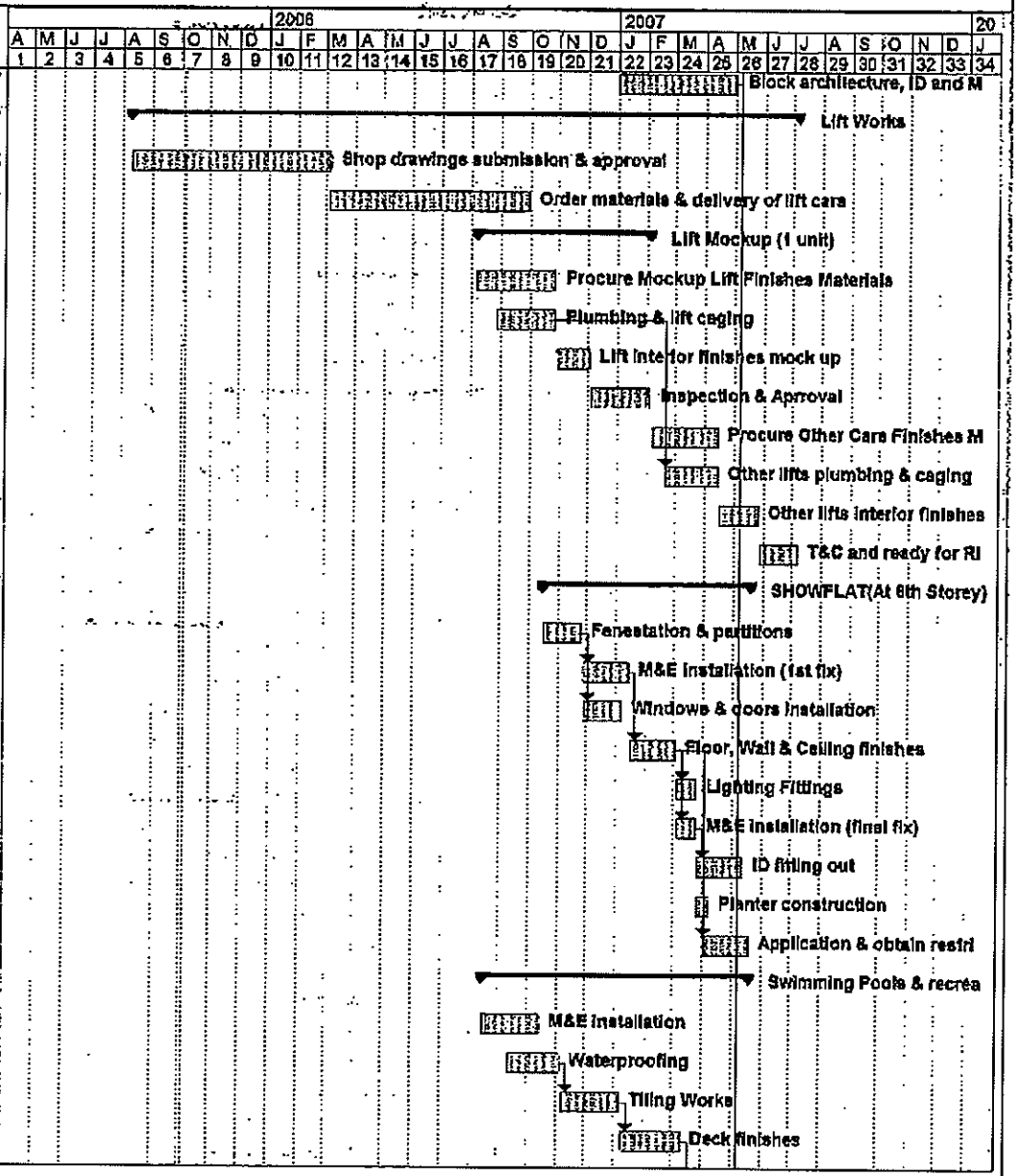
26/10 05 WED 17:20 FAX 67342364 HEX-VIDA@PeckHay →→→ ALPHA ENGRG 005

VIDA At Peck Hay Road

MASTER PROGRAMME

HEXACON

ID	Task Name	Duration	Start	Finish
113	Block architecture, ID and M&E works (final	86 days	Jan 1 '07	Apr 30 '07
114	**Lift Works**	**600 days**	**Aug 10 '05**	**Jul 6 '07**
115	Shop drawings submission & approval	150 days	Aug 10 '05	Mar 6 '06
116	Order materials & delivery of lift cars	150 days	Mar 6 '06	Sep 29 '06
117	**Lift Mockup (1 unit)**	**130 days**	**Aug 7 '06**	**Feb 2 '07**
118	Procure Mockup Lift Finishes Materials	60 days	Aug 7 '06	Oct 27 '06
119	Plumbing & lift caging	45 days	Aug 28 '06	Oct 27 '06
120	Lift interior finishes mock up	25 days	Oct 30 '06	Dec 1 '06
121	Inspection & Aprroval	45 days	Dec 4 '06	Feb 2 '07
122	Procure Other Cars Finishes Materials	50 days	Feb 5 '07	Apr 13 '07
123	Other lifts plumbing & caging	40 days	Feb 19 '07	Apr 13 '07
124	Other lifts interior finishes	30 days	Apr 16 '07	May 25 '07
125	T&C and ready for RI	30 days	May 28 '07	Jul 6 '07
126	**SHOWFLAT(At 6th Storey)**	**155 days**	**Oct 16 '06**	**May 18 '07**
127	Fenestation & partitions	30 days	Oct 16 '06	Nov 24 '06
128	M&E installation (1st fix)	35 days	Nov 27 '06	Jan 12 '07
129	Windows & doors installation	30 days	Nov 27 '06	Jan 5 '07
130	Floor, Wall & Ceiling finishes	35 days	Jan 15 '07	Mar 2 '07
131	Lighting Fittings	15 days	Mar 5 '07	Mar 23 '07
132	M&E installation (final fix)	15 days	Mar 5 '07	Mar 23 '07
133	ID fitting out	35 days	Mar 26 '07	May 11 '07
134	Planter construction	10 days	Mar 26 '07	Apr 6 '07
135	Application & obtain restricted TOP	35 days	Apr 2 '07	May 18 '07
136	**Swimming Pools & recreational facilities**	**200 days**	**Aug 14 '06**	**May 18 '07**
137	M&E installation	45 days	Aug 14 '06	Oct 13 '06
138	Waterproofing	40 days	Sep 11 '06	Nov 3 '06
139	Tiling Works	45 days	Nov 6 '06	Jan 5 '07
140	Deck finishes	45 days	Jan 8 '07	Mar 9 '07



Date: 03 Oct 2006

Task | Task Progress | Critical Task | Critical Task Progress | Milestone | Summary | Rolled Up Task | Rolled Up Critical Task | Rolled Up Milestone | Rolled Up Progress | Split | External Tasks | Project Summary | Group By Summary | Deadline

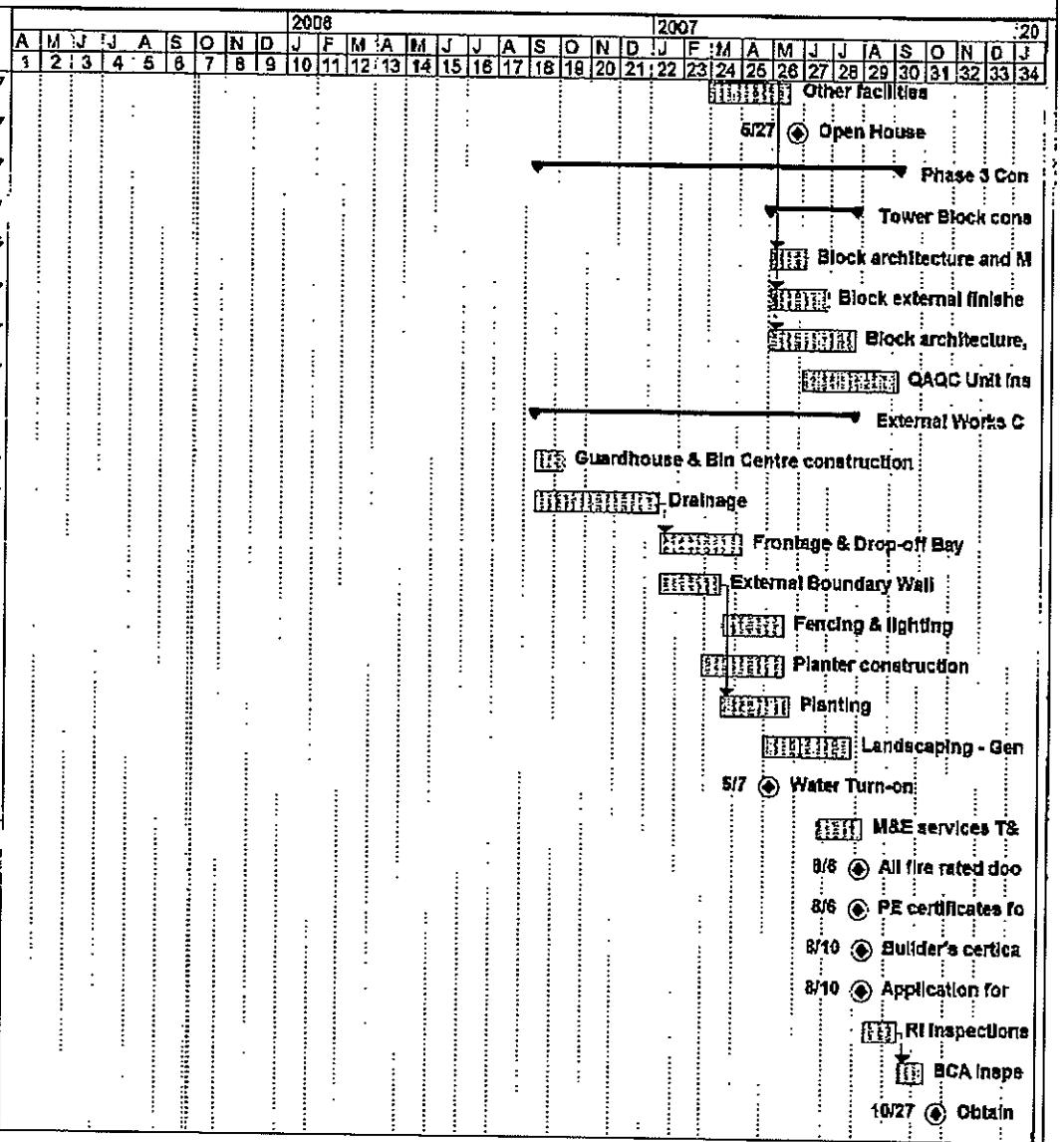
006
→→→ ALPHA ENGRG
HEX-VIDA@PeckHay
26/10 05 WED 17:21 FAX 67342364

VIDA At Peck Hay Road

MASTER PROGRAMME

HEXACON

ID	Task Name	Duration	Start	Finish
141	Other facilities	60 days	Feb 26 '07	May 18 '07
142	Open House	0 days	May 27 '07	May 27 '07
143	Phase 3 Construction (30 months)	261 days	Sep 11 '06	Sep 7 '07
144	Tower Block construction	64 days	May 1 '07	Jul 26 '07
145	Block architecture and M&E works (internal	28 days	May 1 '07	Jun 6 '07
146	Block external finishes & watertightness	44 days	May 1 '07	Jun 28 '07
147	Block architecture, ID and M&E works (final	64 days	May 1 '07	Jul 26 '07
148	QAQC Unit Inspection	70 days	Jun 4 '07	Sep 7 '07
149	External Works Construction	230 days	Sep 11 '06	Jul 26 '07
150	Guardhouse & Bin Centre construction	21 days	Sep 11 '06	Oct 9 '06
151	Drainage	90 days	Sep 11 '06	Jan 12 '07
152	Frontage & Drop-off Bay	60 days	Jan 15 '07	Apr 6 '07
153	External Boundary Wall	45 days	Jan 15 '07	Mar 16 '07
154	Fencing & lighting	45 days	Mar 19 '07	May 18 '07
155	Planter construction	60 days	Feb 26 '07	May 18 '07
156	Planting	50 days	Mar 19 '07	May 25 '07
157	Landscaping - Generally	65 days	Apr 30 '07	Jul 26 '07
158	Water Turn-on	0 days	May 7 '07	May 7 '07
159	M&E services T&C follow by relevant PE certificate	33 days	Jun 25 '07	Aug 8 '07
160	All fire rated doors, partitions completed & certificate	0 days	Aug 6 '07	Aug 6 '07
161	PE certificates for curtain walls, canopies, etc	0 days	Aug 6 '07	Aug 6 '07
162	Builder's certicate of completion	0 days	Aug 10 '07	Aug 10 '07
163	Application for T.O.P.	0 days	Aug 10 '07	Aug 10 '07
164	RI Inspections	25 days	Aug 13 '07	Sep 14 '07
165	BCA Inspection	20 days	Sep 17 '07	Oct 12 '07
166	Obtain T.O.P.	0 days	Oct 27 '07	Oct 27 '07



Date: 03 Oct 2005

Task | Task Progress | Critical Task | Critical Task Progress | Milestone | Summary | Rolled Up Task | Rolled Up Critical Task | Rolled Up Milestone | Rolled Up Progress | Split | External Tasks | Project Summary | Group By Summary | Deadline

SECTION 4

PROGRAMME

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

Service	Authority	Original Submission		Comments/Resubmission						Approval/ Clearance
		Scheduled	Actual	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	
Application for Electricity Supply	SP Services Ltd	-	26/9/03	-	-	-	-	-	-	10/10/03
Power Supply Substation	SP PowerGrid Ltd	-	12/5/04	21/5/04	25/5/04	-	-	-	-	1/6/04
Metering Layout	SP Services Ltd	-		-	-	-	-	-	-	
Sanitary Installation	PUB Water Reclamation (Network) Dept	-	3/6/05	-	-	-	-	-	-	
Domestic Water Supply	PUB (Water Supply) Network Dept	-	9/9/05	18/9/04	1/3/05	-	-	-	-	17/3/05
Gas Supply Installation	City Gas Pte Ltd	-	23/7/04	-	-	-	-	-	-	25/9/04
Air Conditioning & Ventilation Inst.	FSSD	-	5/9/05	-	-	-	-	-	-	19/9/05
Fire Fighting & Alarm Installation	FSSD	-	31/5/05	-	-	-	-	-	-	16/6/05
Telephone Installation	TFCC	-	1/10/04	-	-	-	-	-	-	19/10/04
Broadband Co-axial Cable System (BCS)	Starhub Cable Vision	-	1/10/04	-	-	-	-	-	-	19/10/04
Fuel Storage	FSSD	N.A.								
	NEA (Pollution Control)	N.A.								

SECTION 4

PROGRAMME

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

Service	Authority	Original Submission		Comments/Resubmission						Approval/ Clearance
		Scheduled	Actual	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	
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: 1126		File Ref: 1126	
- Owner	✓	- Architect	✓
- Authorities	✓	- Other Consultants	✓
- Contractors	✓	- CC	✓
- CF	✓	- PQP/QSP	✓

Project Files to be initiated by PM as and when required

File Ref: 1126		File Ref:		File Ref:	
- IC	✓				

Files under the old Filing System

File Ref: 1126		File Ref: 1126		File Ref: 1126		File Ref: 1126		File Ref: 1126	
-CM	✓	-SF	✓	-SQ	✓	-VO	✓	-E-G	✓
-PC	✓	-GC	✓	-CO	✓	-A-G	✓	-L-G	✓
-AE	✓	-SM/TM	✓	-EC/MC	✓	-F-G	✓		
-AM	✓	-SC	✓	-PP	✓	-P-G	✓		
-BD	✓	-AD/AI	✓	-AA	✓	-S-G	✓		

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	Chim Heng Leong
Incoming Architectural Sketches/Details	Chim Heng Leong
Incoming Structural Drawings	Lim Chai Hoon
M&E Drawings	
- Electrical Installation	Lim Chai Hoon
- Lift & Escalator Installation	Lim Chai Hoon
- Air Conditioning & Ventilation Installation	Chim Heng Leong
- Fire Fighting & Alarm Installation	Chim Heng Leong
- Plumbing & Sanitary Installation	Chim Heng Leong
- Swimming Pool & Filtration Installation	Chim Heng Leong
Other Drawings	
- Landscape Drawings	Lim Chai Hoon

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 - NOT USED

Item No.	Description*	Required From	Required By	Date Required	Remarks

** 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	-	A	C	I	
b.	Project Administration	I	-	C	I	I	
c.	Project Cost Estimate/Contract Cost	A	-	I	-	I	
2.	**Drawings**						
a.	Outline Design Drgs.	A	-	C	C	-	
b.	Sketch Design Drgs.	I	-	C	C	-	
c.	Final Design Drgs.	I	-	C	C	I	
d.	Shop Drawings	I	-	C	C	-	
e.	As Built Drgs.	I	-	C	C	-	
3.	**Other Document**						
a.	Specification	A	-	I	-	-	
b.	Tender Document	I	-	I	-	-	
c.	Tender Evaluation Report	A	-	I	-	C	
d.	Design Report	A	-	C	-	I	
e.	Progress Report	I	-	I	-	I	
f.	Financial Report	I	-	I	-	I	
g.	Minutes of Meeting	I	-	I	-	I	
h.	Inspection Report	I	-	I	-	-	
i.	Testing & Comm. Report	I	-	I	-	-	
j.	O & M Manual	I	-	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 Questionaires			✓		
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 : AEC Site Staff

SECTION 8

DESIGN INPUT & METHODOLOGY

8.1 List of Client's Standards, Reference Documents or Brief

ITEM	KEPT BY
N.A.	N.A.

8.2 List of Applicable Code of Practice and Regulations

Electrical Wiring	~~BS~~	SS	IEE	~~NFPA~~	
Lightning Protection System	~~BS~~	SS			
Emergency Voice Communication System	~~BS~~	~~SS~~	~~NFPA~~		
Air Conditioning & Ventilation Installation	~~BS~~	~~AS~~	~~NFPA~~	SS	~~MS~~
Lift Installation	~~BS~~	SS			
Sprinkler System	~~BS~~	~~SS~~	~~NFPA~~	~~AS~~	~~LPC~~
Wet Riser System	~~BS~~	~~SS~~	~~NFPA~~	~~AS~~	~~MS~~
Automatic Fire Alarm System	~~BS~~	SS	~~NFPA~~	~~AS~~	~~MS~~
Sanitary System	~~BS~~	SS	~~NFPA~~	~~AS~~	~~MS~~
Plumbing System	~~BS~~	SS	~~NFPA~~	~~AS~~	~~MS~~
Town Gas/LPG Supply System	~~BS~~	SS	~~NFPA~~	~~AS~~	
Boiler and Steam Supply System	~~ASME~~	~~BS~~	~~AS~~		
Mechanical Smoke Control System	~~BS~~	~~NFPA~~	~~AS~~		

(Delete where necessary)

SECTION 8

DESIGN INPUT & METHODOLOGY

8.3 List of Design Guide or Handbook Used

Carrier's Handbook of Air Conditioning System Design

ASHRAE Handbooks

Institute of Plumbing's Plumbing Services Design Guide

8.4 List of Applicable Quality System Procedures

Alpha Engineering Consultant'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 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	
Q1	Quality System Audit	
Q2	Feedback Reporting	
Q3	Clients Feedback	
Q4	Management Review	

8.5 List of Software Used For Design/Analysis - NOT USED

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 Engineering	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 Engineering	Calculation of voltage drop and fault level	

(✓*where applicable*)

SECTION 9

CLIENT'S REQUIREMENTS

9.1 List of Output Required by Client:-

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

** Remarks*

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

Other purposes and for action: please specify.

9.2 Specific Procedures Required By Client *(If applicable)*

N.A.

SECTION 10

LIST OF SUB-JOB

10.1 List of Sub-Job Numbers - NOT USED

Sub Job No	Description	Allocation Details