PROJECT QUALITY PLAN

PSA VISTA

For

M/S PORT OF SINGAPORE AUTHORITY

Copy No.	2

Prepared By: YIP Y F

Authorised By: Andrew Loh

Date: 4 June 1997

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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	Andre Loh	4 June 1997
2	Yip Y F	4 June 1997

1.2 Revision Record

Version	Date of Issue	Section Reference	Page(s)	Remarks
1/0	04.06.97	Section 1 - Section 9	27	1st Issue

SECTION 2

PROJECT INFORMATION

2.1 Project Description

Type of Development	Industrial Building

Size of Development	
Site Area, m²	12879.19
Nett Floor Area, m² *	18847.08
Gross Floor Area, m²	23182.54
Covered Carpark, m²	4335.46
Total Built-up Area m²	23236.92
No. of Covered Carpark Lots	115
No. of Apartments/Houses	NA
No. of Guest Room	NA
No. of Storeys	8 Storey & 1 Basement
No. of Phases	1

*** Excludes Covered Carpark**

2.2 Cost Plans

M&E Services Cost Plan (S$ x 1M)									
Services	EI	ACVI	LEI	FFAI	PSI	SPFI			
Estimate	-	-	-	-	-	-			
Awarded	-	-	-	-	1.99	-			

Total Project Construction Cost (S$ x1M)				
	Site Clearance	Piling	Sub-Structure *	Super-Structure *
Estimate	-	-	-	-
Awarded	-	-	11.1	50.780

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

**Include provision for M&E Services*

2.3 Scope of Works

2.3.1 Scope of Consultancy Services

Conceptual/Schematic Design	3
Detailed Design	3
Tender Documentation	3
Tender Evaluation	3
Contract Supervision	3
M&E Costing	3
Submissions to Authority	3

(✓ *where applicable*)

2.3.2 Scope of M&E Services

ELECTRICAL		AIR CONDITIONING		SPRINKLER		SANITARY	3	SWIMMING POOL	
LIFT		MECHANICAL VENTILATION		FIRE ALARM		COLD WATER	3	STEAM BOILER	
ESCALATOR		MECHANICAL SMOKE EXTRACT		HOSEREEL		HOT WATER	3	FUEL STORAGE	
PABX		COMPUTER A/C		WET RISER		TOWN GAS			
SECURITY		BST CARPARK EXH		DRY RISER		LPG GAS			
TELELIFT		HEATING							
DATA COMM.									
FLUSHFLOOR TRUNKING									

(✓ *where applicable*)

2.3.3 Submission to Relevant Authorities by Others

EJECTOR & DIVERTER	3	SUMP PUMP	3	FUEL OIL TANK		LIFT & ESCALATOR		PRESSURE VESSEL		HOISTS		FOAM	

2.4 Work Packages

2.4.1 M&E Services Sub-Contract

SERVICES	TYPE*
Electrical Installation	-
Lift & Escalator Installation	-
PABX Installation	-
Telelift Installation	-
Security Installation	-
Fire Fighting & Alarm Installation	-
Air Conditioning & Ventilation Installation	-
Plumbing & Sanitary Installation	DSC
Building Automation System	-
Swimming Pool Filtration Plant	-

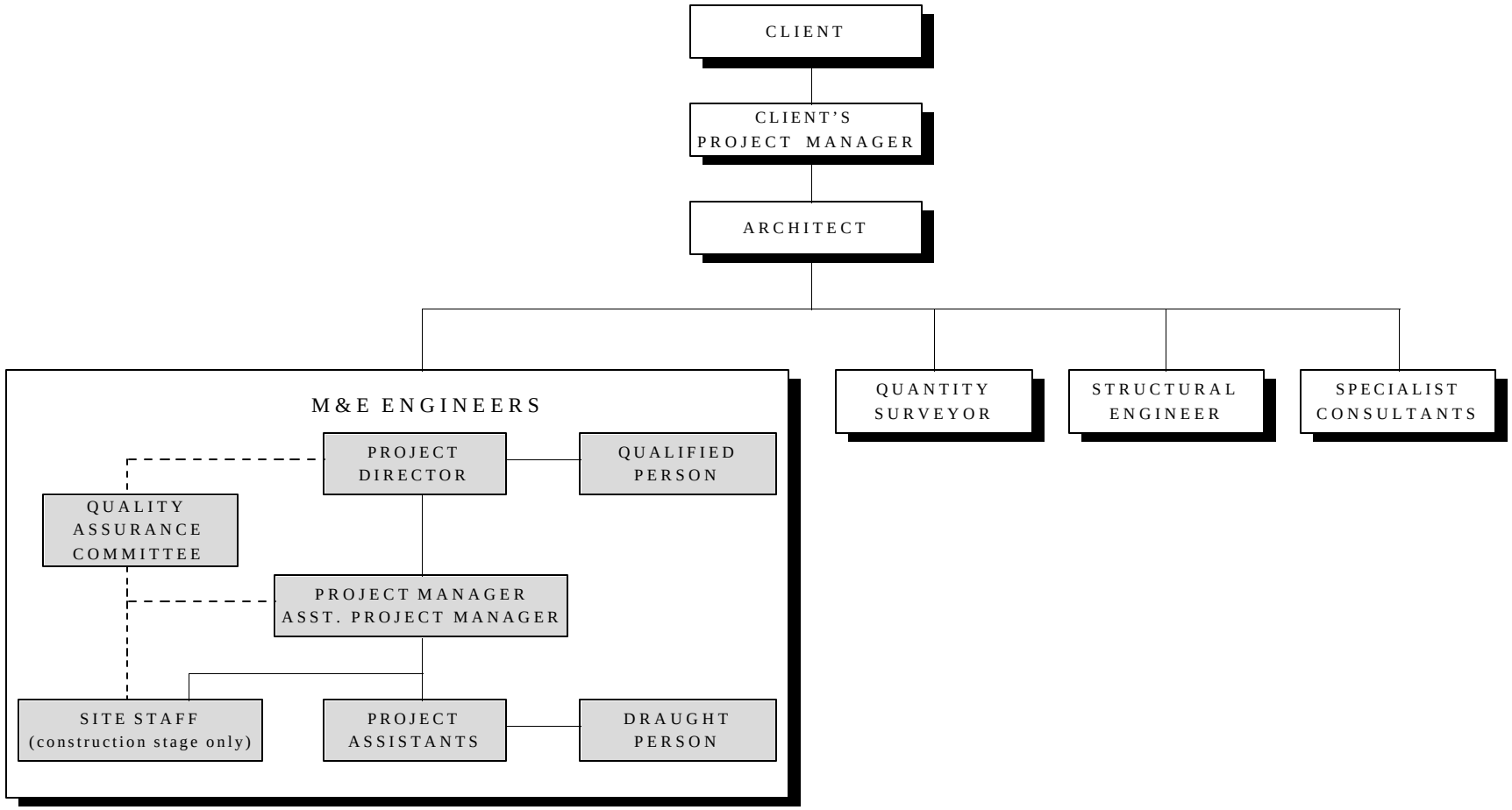
**NSC: Nominated Sub-Contract* **DC: Direct Contract*

*DSC: Domesticated Sub-Contract *NS: Nominated Supplier

SECTION 3

ORGANISATION

3.1 Organisational Chart



SECTION 3

ORGANISATION

3.2 Project Related Staff

TITLE		NAME
Project Director		Andrew Loh
Qualified Person	Mechanical	Yip Y F
	Electrical	NA
Project Manager		Yip Y F
Assistant Project Manager		NA
Project Assistant (Mech)		NA
Project Assistant (Elect)		NA
Draughtsperson		NA
Resident Engineer		PSA Staff
Assistant Resident Engineer		PSA Staff
Clerk-of-Work		PSA Staff

3.3 Client/Client's Representatives

Client:- M/s Port of Singapore Authority

Address:- PSA Building
460 Alexandra Road

Tel:- 279 5061

Fax:- 279 5799

Client's Representative Related Staff:-

NAME	POSITION	DID/TEL NO.	REMARKS
Ong Chin Hwee	Project Manager	279 5061	
Tiong Yong Tung	Manger (M&E)	279 5238	

3.4 Other Consultants (Local)

Function / Name of Firm	Contact Person and Position	Telephone/ Fax/Pager Nos.
Architect DP Architects Pte Ltd	Ms Chow Lai Fun	338 3988 / 338 8341
Quantity Surveyor Port of Singapore Authority	Mr Eric Lim	279 4293 / 279 5517
Structural Engineer Oscar Faber Consultants Pte Ltd	Mr Lee T C Mr Guo Zeqin	336 7277 / 338 1076
Interior Designer	-	
Lighting Consultant	-	
Acoustic Consultant		
Client's Project Manager	-	
Other Specialist Garden & Landscape Centre Pte Ltd	Mr Richard Tan	332 3886 / 332 1990

3.5 Contractors/Sub-Contractors

Function / Name of Firm	* Type	Contact Person and Position	Telephone/Fax/Pager Nos.
1. Main Contractor JDC-Santarli A/V		Mr T Takeyama (PM)	779 2456 / 779 6046
2. Air Conditioning & Ventilation Installation Sub-Contractor		-	-
3. Plumbing & Sanitary Installation Sub-Contractor JDC-Santarli J/V	DSC	Mr Joseph Yeo (M&E Coordinator)	779 2546 / 779 6046

** 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 No:/Fax No:
PUB (Water)	Mr David Loh	731 3518
(a) Water Conservation	Mr Toh Tse Teck	731 3552
(b) Plumbing Plan		
(c) Diversion		
ENV (Sewerage):		
(a) Building Plan		
(b) M&E Section	Mr Chow Yew Meng	731 9630
(c) Diversion		

SECTION 4

PROGRAMME

4.1 Overall Programme

			1996												1997											
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																									

PROGRAMME

4.3 Authority Submission Status for M&E Services (Main Building)

Service	Authority	Original Submission		Comments/Resubmission						Approval/ Clearance
		Scheduled	Actual	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	
Application for Electricity Supply	Power Supply Pte Ltd									
Power Supply Substation	PowerGrid Pte Ltd									
Main Single Line Diagram	Power Supply Pte Ltd									
Consumer Switchroom Layout	PowerGrid Pte Ltd									
Metering Layout	PowerGrid Pte Ltd									
Sanitary Installation	ENV (Sewerage)									06.03.96
Domestic Water Supply	PUB (Water)									15.03.96
Gas Supply Installation	PowerGas Pte Ltd									
Air Conditioning & Ventilation Inst.	Building Control Division									
	Fire Safety Bureau									
Fire Fighting & Alarm Installation	Fire Safety Bureau									
	Telecom (Broadband)									
Telephone Installation	Telecom (TDCS)									
	Telecom (Domestic Operation)									
Fuel Storage	Fire Safety Bureau									
	Pollution Control Department									

SECTION 4

PROGRAMME

4.4 Authority Submission Status for M&E Services (Amendments)

Service	Authority	Original Submission		Comments/Resubmission						Approval/ Clearance
		Scheduled	Actual	Comment	Resubmit	Comment	Resubmit	Comment	Resubmit	
Application for Electricity Supply	Power Supply Pte Ltd									
Power Supply Substation	PowerGrid Pte Ltd									
Main Single Line Diagram	Power Supply Pte Ltd									
Consumer Switchroom Layout	PowerGrid Pte Ltd									
Metering Layout	PowerGrid Pte Ltd									
Sanitary Installation	ENV (Sewerage)									
Domestic Water Supply	PUB (Water)									
Gas Supply Installation	PowerGas Pte Ltd									
Air Conditioning & Ventilation Inst.	Building Control Division									
	Fire Safety Bureau									
Fire Fighting & Alarm Installation	Fire Safety Bureau									
	Telecom (Broadband)									
Telephone Installation	Telecom (TDCS)									
	Telecom (Domestic Operation)									
Fuel Storage	Fire Safety Bureau									
	Pollution Control Department									

SECTION 4

PROGRAMME

4.5 Work Progress - Design and Tender Stage

M&E Services

	SERVICES		EI	ACVI	LEI	FFAI	PSI	SPFI
1.	Number of Drawings							
2.	Preliminary Design Completed	25%						
		50%						
		75%						
		100%						
3.	Detailed Design Completed	25%						
		50%						
		75%						
		100%						
4.	Tender Document Completed	25%					-	
		50%					-	
		75%					-	
		100%					100%	
5.	TENDER							
	Tender Date						-	
	Tender Evaluation Report						-	
	Tender Award						Feb 96	

SECTION 5

PROJECT RECORDS

5.1 List of Internal Files

Standard Files

File Ref:		File Ref:	
-CM		-QSP	
-PC		-BD	
-PUB/TAS		-CC	3
-BCD/FSB/ENV		-GC	
-PQP		-CF	3

Project Files to be initiated by PM as and when required

File Ref:		File Ref:		File Ref:	
-SM		-SR		-ET	
-SC		-QM		-MT	
-AI		-EC		-DF	
-SQ		-MC		-EOT	
-CO		-P			

Service Files to be initiated by PM as and when required

	Service										
File Ref:	ACVI	FFAI	PSI	EI	LI	SPFP					
-G											
-Q											
-VO											
-P											
-AI											
-AD											
-CF											

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	Yip Y F
Incoming Architectural Sketches/Details	Yip Y F
Incoming Structural Drawings	Yip Y F
M&E Drawings	-
- Electrical Installation	-
- Lift & Escalator Installation	-
- Air Conditioning & Ventilation Installation	-
- Fire Fighting & Alarm Installation	-
- Plumbing & Sanitary Installation	Yip Y F
Other Drawings	

SECTION 6

INTERFACING

6.1 Method of Interface

Description	Method of Interface
Client's Review & Approval	1. Brief Design Report 2. Discussion in Client/Consultant Meeting
Interface With External Design Teams	1. Communication via faxes & letters. 2. Discussion during Client/Consultant Meeting
Interface Between Internal Design Teams	1. Memo or circulation of design information. 2. Adhoc meeting.

SECTION 6

INTERFACING

6.2 Internal Design Interface

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		C	C		
b.	Project Administration	I		C	I	I	
c.	Project Cost Estimate/Contract Cost)	A		I		I	
2.	**Drawings**						
a.	Outline Design Drgs.	A		C	I		
b.	Sketch Design Drgs.	I		C	I		
c.	Final Design Drgs.	I		C	I		
d.	Shop Drawings	I		C	C		
e.	As Built Drgs.	I		I			
3.	**Other Document**						
a.	Specification	A		I			
b.	Tender Document	I		I		C	
c.	Tender Evaluation Report	A		I		I	
d.	Design Report	A		C			
e.	Progress Report	I		I			
f.	Financial Report	I		I		C	
g.	Minutes of Meeting	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	SS
Checklists			3	
Client Correspondence/Fax			3	
Other Consultants Correspondence/Fax			3	
Contractor's Drawing. Review			3	
Contractor's Technical Submittals			3	
Contract Correspondence			3	
Contract Payment Certificates			NA	
Final Account Certificates			NA	
Site Instruction/Direction			3	
Architect Instruction/Direction			3	
Site Progress Reports			3	
Design Drawing. Approval			3	
Design Drawing. Checking			3	
Local Authority Correspondence/Submission		3		

* *Tick where authorised.*

Key to abbreviations:-

PD : Project Director

QP : Qualified Person

PM : Project Manager/Assistant Project Manager

SS : (Designated) Site Staff

SECTION 8 - NOT USED

SECTION 9

CLIENT'S REQUIREMENTS

9.1 Specific Documents/Reports Required by Client:-

Item	Date Required	* Remarks
PSI Design Report		A
Preliminary Tender Documents		A
Tender Report		A
Progress Report		A
Payment Valuation for QS		NA
O&M Manuals		Re
As-Built Drawings		Re

* *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)*