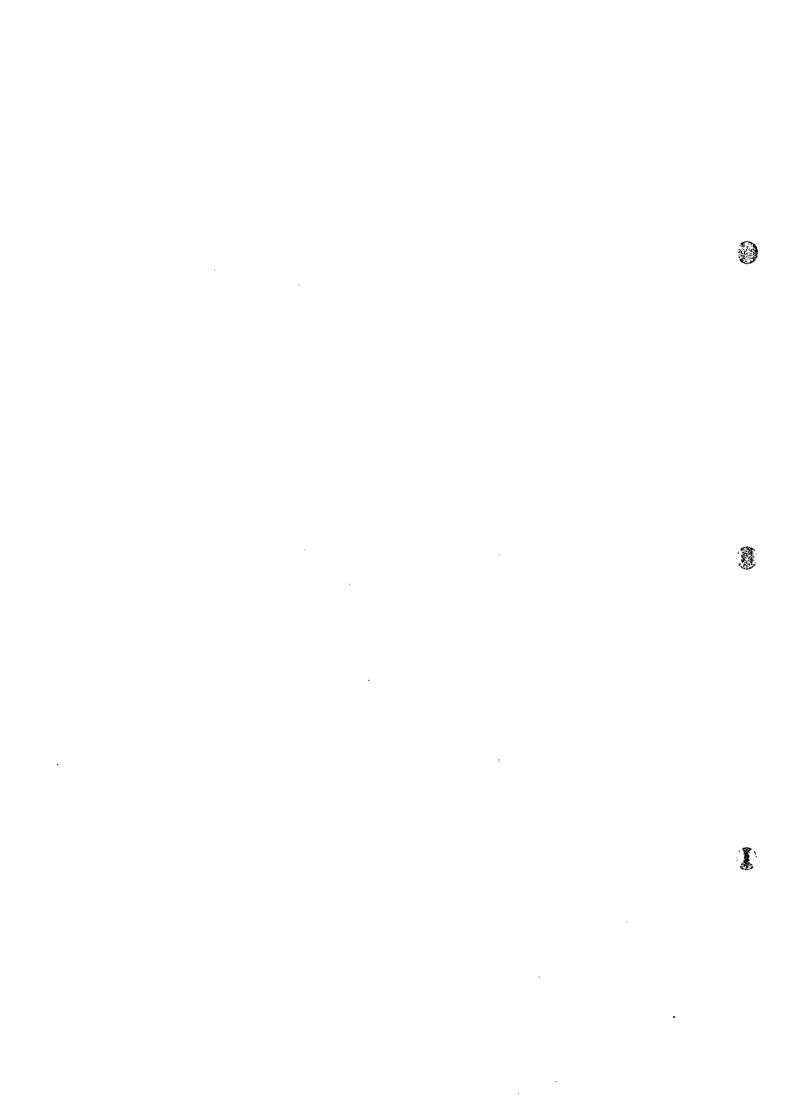
PART-1 DIRECT WORKS

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Shangh	Shanghai Pudong International Airport Project (F	Fuel S	uel Supply System)	cm)					
Item				Foreign Cost	Foreign Cost Component	Local Cost Component	Component	Combined	
Š	Description of Works	Chrit	Quantity		(Yen)	(China RMB)	RMB)	Total	
		·	•	Rate	Amount	Rate	Amount	China RMB	-
	DIVISION 1 Fuel Storage Depot								
1.1	Section-1 Fuel Equipment								
1.1.1	Tank								
1.1.1.1	10,000M' Fuel storage tank	No	9						
1.1.1.2	100M* Slop tank	No	2						
1.1.1.3	25M Drum tank	oN.	7						
1.1.1.4	0.2M' Sample drum	S N	9						-
1.1.2	Tank Accessories			ļ					
1.1.2.1	Manhole Dg750	No	9						
<u></u>				3					47.4
1.1.2.2	Manhole Dg600	No	10		-				
1.1.2.3	Roof manhole B type Dg500	No	20						
									y
1.1.2.4	Gauge hatch	No	8						
									-
1.1.2.5	Breather valve Dg250	No	18	Ī					
1.1.2.6	Breather valve Dg100	S N	2						-
								•	
1.1.2.7	Flame arrestor Dg250	Š	18						Table 1
1.1.2.8	Flame arrestor Dg100	No	2						-
-									ił

Item No.	Item Description of Works Unit Ougntity	Unit	Ouantity	Foreign Cost Component (Yen)	Component	Local Cost	Local Cost Component (China RMR)	Combined
				Rate	Amount	Rate	Amount	China RMB
1.1.2.9	FX type float suction Dg500	S N	12					
1.1.3	Pump							
1.1.3.1	Hydrant pump Q=200m ³ /h H=125m	οÑ	01					
1.1.3.2	Pressure pump Q=50m³/n H=125m	Š	2					
1.1.3.3	Slop lorry loading Q=60m"/h H=125m	ž	2					
1.1.4	Filter							
1.1.4.1	Filter separator Q=360m³/h	Š	1					
1.1.4.2	Filter separator Q=240m³/h	å	10					
1.1.4.3	Filter separator Q=120m ³ /h	ž	2					
			,					
÷. 1. 1	Filter separator O=90m/h	2	2					
1.1.4.5	Pre-filter O=360m ³ /h	g						
1.1.4.6	Y type strainer Dg200	8 N	14					
1.1.4.7	Y type strainer Dg150	å	2					
						,		

DIVISION 1 FUEL STORAGE DEPOT

Shangh	Shanghai Pudong International Airport Project (Fu	t (Fuel	el Supply System)	em)				
Item	Description of Works	Trif	Ouantify	Foreign Cost	Foreign Cost Component (Ven)	Local Cost Component (China RMB)	Component RMB)	Combined Total
į	TO INCIDENCE OF	1	(1) (1) (1) (1) (1) (1) (1) (1) (1) (1)			2000	7	
				Rate	Amount	Kate	Amount	China KMB
1.1.5	Valve							
1.5.1	Electric motor operated twin seal shutoff valve	valve						
	Pg16 Dg600	No	2					
		S N	18					
	-							
1.1.5.2	Twin seal shutoff valve							
	Pg16 Dg600	No	1			*******		
	Pg16 Dg500	No	2					
	Pg16 Dg250	S N	1					
1.1.5.3	Flow control valve Q=200 m³/h	No	10					
	Flow control valve Q=50 m3/h	No.	2					
1.1.5.4	Pressure release valve Dg150	Š	2					
	(control pressure : 1.6Mpa)							
1.1.5.5	Gate valve Pg16 Dg600	No	4					
	Gate valve Pg16 Dg500	oN	18					
	Gate valve Pr16 Dg300	No No	7					}
	Gate valve Pg16 Dg200	No	48					
	Gate valve Pg16 Dg150	No	17					
	Gate valve Pg64 Dg300	No	5					
	Gate valve Pg16 Dg100	No	25					
	Gate valve Pg16 Dg80	% N	01					
	valve Pg16	No.	16					
	Gate valve Pg16 Dg40	No	13					

No.	_				Item Fc	Foreign Co	Foreign Cost Component	Local Cost	Ocal Cost Component	Combined
	Desc	Description of Works	orks	Cait	Quantity	()	(Yen)	(Chin	China RMB)	Total
						Rate	Amount	Rate	Amount	China RMB
	Gate valve	Pg16 Dg25	25	No	14					
	Gate valve	Pg64 Dg25	5	No	5					
1.1.5.6	Check valve	Pg16	Dg2tk)	°Z						
	Check valve	Pg16	Dg150	å	7					
	Check valve	Pg16	Dg100	ž	4					
	Check valve	Pg16	Dg40	No	7					
				-						
ĺ										
1.1.5.7	Needle vaive	918d	Dg15	No	36					
1.1.5.8	Globe valve	Pg16	Dg600	å	3					
	Globe valve	Pg16	Dg300	ટ્ટ	2					
	Globe valve	Pg16	Dg200	ž	11					
	Globe valve	Pg16	Dg100	å	4					
	Globe valve	Pg16	D ₂ 80	ž	4					
	Globe valve	Pg16	Dg40	å	14					
	Ball valve	Pg16	Dg25	ν̈́	35					
1.1.5.9	Safety valve	Pg25	Dg25	οN	9					
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	Tert Eamiters									
,	דיייי בין היים חייונות ביונו	בונר							DUC-F.	
	lest equitment of fuel storage depot	of fuel storag	e depot	S.	-					

DIVISION 1 FUEL STORAGE DEPOT

tem .	11.32.33	7	Item	Foreign Cos	Foreign Cost Component	Local Cost	Local Cost Component	Combined
Š.	Description of Works		Quantity	_	(Yen)	(China	(China RMB)	Total
				Rate	Amount	Rate	Amount	China RMB
1.1.7	Mchinery Maintenance							The second secon
1.7.1	Ordinary lathe C6140	oN	1					
1.1.7.2	==	No	1					
	elevating platform X62W							
1.1.7.3	Universal Radial drilling machine 23032	No	1					
1.1.7.4	Bench drilling machine Z412	å	pre					
1.1.7.5	Vertical grinder MC330	No	1					
1.1.7.6	Bench grinder S3ST-250	% N	7			:		
1.1.7.7	Welding machine BX1-250-2	% N						
1.1.8	Vehicles							
1.8.1	Passenger-cargo bus	No	9					
1.1.8.2	Fork lift truck	No	1					
1,1,8,3	[213] jeep	No	7					
1.1.8.4	Medium passenger bus	No	£					
1.1.8.5	Car	No	2					
1.1.8.6	Coach	8 N	2					
1.1.8.7	Truck for pumping oil	No	1					
1.1.8.8	10M Truck for transport oil	S N						
Ì								
ŀ								
1.1.9	Other						- A	
1.1.9.1	Hand-stretch chain block	No	1					
1.1.9.2	Combination kit GTP-323	No	1					
1.1.9.3	Millipore sampler	No	9					
1,1.9.4	Stainless steel hopper	No	91					

Item	ltem		FC	Foreign Co	Foreign Cost Component	Local Cost	Local Cost Component	Combined	[j==
Š	Description of Works	Unit	Quantity	,	(Yen)	(China	(China RMB)	Total	
				Rate	Amount	Rate	Amount	China RMB	
1.1.10	Cathodic protection system								-
1.1.10.1	Magnesium anode	No	45						-
1.1.10.2		K ₂	3290						
	mirabilite 20%								
1.1.10.3	Cable	E	009						
1.1.10.4		å	12						-
1.1.10.5	T	å	-						
1.1.10.6		å							
1.1.10.7		ž	-						
									z=s
									-
							,		

DIVISION I FUEL STORAGE DEPOT

Shangh	Shanghai Pudong International Airport Project (Fuel Supply System)	oort Project	(Fuel S	upply Syst	em)				
Item					Foreign Cost Component	Component	Local Cost Component	Component	Combined
Š	Description of Works	ks	Cnit	Quantity	(Yen)	in)	(China RMB)	RMB)	Total
					Rate	Amount	Rate	Amount	China RMB
11.1.11	Pipe Material								
1.1.11.1	Spiral welded pipe	Dg750	u	283					
		Dg600	Œ	250					
	ğQ	Dg500	u	735					
1.1.11.2	ipe	Dg300	m	380					
	oipe	Dg350	ш	10				-	
	(1)	Dg250	E	55					
		Dg200	ш	750					
		Dg150	u	408					
1.1.11.3	20" Seamless steel pipe Dg	Dg100	E	260					
	(GB8163-87) D	Dg80	w	787					
	βC	Dg50	m	50					
	δG	Dg40	ш	140					
	DE	Dg25	m	170					
) O	Dg15	m	09					
1.1.11.4	n Joint	Dg500	No	18					
1.1.11.5	Flexible hose Dg	Dg100	o N	9					
				-					
	:	į					:		

DIVISION 1 FUEL STORAGE DEPOT

Shangh	Shanghai Pudong International Airport Project (Fuel Supply System)	(Fuel S	upply Syst	lem)				•
S S	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)	Component n)	Local Cost Compo	Local Cost Component (China RMB)	Combined Total
				Rate	Amount	Rate	Amount	China RMB
1.2	Section-2 Power Supply and Instrument	ent						
1.2.1	Dry-type transformer 1600/10/0.4 D.yn11	No	2					
1.2.2	H.V. switchgear	Š	8					
1.2.3	L.V. switchboard	No.	24					
1.2.4	Frequency conversion control panel							
	of fuel pump (V.V.V.F)	S,	2					
1.2.5	Power distribution cabinet	S N	2					
1.2.6	Reduced voltage start cabinet	Š	7					
1.2.7	Flush monut lighting distribution box	ŝ	14					
1.2.8	Explosion-proof lighling distribution	ž	I					
1.2.9	Soft starter for oil pump PSD-210	ŝ	2					
1.2.10	Signal cabinet box	ဦ	16					
1.2.11	Lighting							
1.2.11.1		S _o	2					
1.2.11.2	Garden lamp 3*100W	å	09					
1.2.11.3	Pendent lighting fitting 200W	No No	12					
1.2.11.4	Flame-proof lighting fitting 200W	No	77					
1.2.11.5	Fluorescent lighting fitting 2*40W	No.	618					

DIVISION I FUEL STORAGE DEPOT

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		t China RMB	- 1																					
	l Cost Componer (China RMB)	Amount											 			 	~==		 			:=	-	-
	Local Cost Component (China RMB)	Rate																						
	ost Component (Yen)	Amount																						
:m)	oreign C	Rate																						
upply Syste	Quantity			8	229	5	35			149	16	1867		051	270	16		5500						
(Fuel Si	Unit			% N	N _o	S S	o N			No	No	ш		No	æ	% Z		No		 				
Shanghai Pudong International Airport Project (Fuel Supply System)	Description of Works		Receptacle	Flush-mount 3-phase receptacle 20A	Flush-mount 1-phase receptacle 10A	Explosion-proof 3-phase receptacle 20A	Explosion-proof 1-phase receptacle 10A		Switch	Flush-mount switch 10A	Explosion-proof switch 10A	Grounding conductor copper 40*4		Earth electrode	Lightning protection copper Dg8	Cable manhole		Concrete duck bank						
Shangha	Item No.		1.2.12	1.2.12.1	1.2.12.2	1.2.12.3	1.2.12.4	П	1.2.13	1.2.13.1	1.2.13.2			1.2.14	1.2.15	1.2.16		1.2.17						

DIVISION 1 FUEL STORAGE DEPOT

Shangh	Shanghai Pudong International Airport Project (Fuel Supply System)	(Fuel S	supply Syst	em)				
Item No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)	Component (n)	Local Cost Component (China RMB)	Component RMB)	Combined Total
				Rate	Amount	Rate	Amount	China RMB
1.2.18	Power cable And Wire							
1.2.18.1	PVC/SWA/PVC-1KV 3*150+1*70	m	1092					
1.2.18.2	PVC/SWA/PVC-1KV 3*95+1*50	ш	1291					
1.2.18.3	PVC/SWA/PVC-1KV 3*70+1*35	E	230					
1.2.18.4	PVC/SWA/PVC-1KV 3*50+1*25	ш	122					
1.2.18.5	PVC/SWA/PVC-1KV 3*35+1*16	ш	285					
1.2.18.6	PVC/SWA/PVC-1KV	Ħ	517					
1.2.18.7	PVC/SWA/PVC-1KV 3*10+1*6	m	626					
1.2.18.8	PVC/SWA/PVC-1KV 3*6+1*4	Œ	1170					
1.2.18.9	PVC/SWA/PVC-1KV 3*4+1*2.5	æ	14091					
1.2.18.10	PVC/SWA/PVC-0.5KV 14*1.5	ш	9100					
1.2.18.11		E	880					
1.2.18.12	PVC/SWA/PVC-0.5KV 6*1.5	ш	580					
1.2.18.13		ш	880					
1.2.18.14		m	1450					
1.2.18.15	PVC/SWA/PVC-0.5KV 2P*1	Ħ	1320					
1.2.18.16	PVC 2.5	ш	22040					
1.2.18.17	Optic fiber cable OGLAP-CMZE 1C	l m	7600					
1.2.19	ITV							
1.2.19.1	SYV-75-5-2	E	1250					
1.2.19.2	RVVP-5*0.2	m	1250					
1.2.19.3	RVVP-7*0.2	m	1250					
1.2.20	Sleev pipe							
1.2.20.1	PVC SC100	ш	206					
1.2.20.2	PVC SC80	ш	- 05					

DIVISION 1 FUEL STORAGE DEPOT

Shangh	Shanghai Pudong International Airport Project (Fuel Supply System)	(Fuel S	upply Syst	cm)				
Item				Foreign Cost Component	Component	Local Cost	Local Cost Component	Combined
Š	Description of Works	Cart	Quantity	(Xen)		(China	(China RMB)	Total
;	and the second of the second o	:		Rate	Amount	Rate	Amount	China RMB
1.2.20.3	PVC SC40	m	3343					
1.2.20.4	PVC SC20	uı	5520					
1.2.20.5	PVC SC15	m	11900					
1.2.21	Explosion-proof control station	ટ્ર	10					
1.2.22	Instrument Equipment							
1.2.22.1	Computer monitoring system (DCS)	ş	1					
1.2.22.2	Master station for MOV	οN	2					
1.2.22.3	ITV System	o N	1					
1.2.22.4	Power box 24V/5A	No No	2					
	Flow transmitter							
1.2.22.5		S N	2					-
1.2.22.6	Type Turbine Meter 6"	No	10					
1.2.22.7		No	ĭ					
1.2.22.8	Type Turbine Meter 12"	No	2					
1.2.22.9	Pressure transimitter	No	16					
1.2.22.10	Hand held brain terminal	No	1					
1.2.22.11	Pressure gauge Y-100 0~1.6MPa	No	2					
1.2.22.12	1.2.22.12 Pressure gauge Y-100 0-6.4MPa	No	1					
1.2.22.13	1.2.22.13 Vaccum pressure gauge YZ-100	No	21					
1.2.22.14	Muti-function needle value for PG	No	38					
	Integrative temperature transmitter							
1.2.22.15	with RTD Pt100 1=250mm	No	1					
1.2.22.16	5 Pt 100 1=450mm	No	2					
1.2.22.17	/Explosion-proof float level controller	S N	14					
1.2.22.18	1.2.22.18 Glass level meter L=1400mm	No	9					

Shangh	Shanghai Pudong International Airport Project (F	Fuel S	uel Supply System)	em)		
No.	Description of Works	Cnit	Quantity	Foreign Cost Component (Yen)	Local Cost Component	Ŭ
			,	Rate Amount	Rate Amount	Int China RMP
1.2.22.19	Glass level meter L=800mm	o N	9			-
1.2.22.20	1.2.22.20 Radar lever meter for dome-roof tank	No	9			•
1.2.22.21	1.2.22.21 Muti-point average temperature meter	No.	9			
1.2.22.22	1.2.22.22 Date collection unit of level coutroller	å	9			
1.2.22.23	1.2.22.23 Explosion-proof junction box for	Š	61			
	level meter					
1.2.22.24	.2.22.24 Councction unit for level meter	^o N	-			
1.2.22.25	1.2.22.25 Level measure software package	å				
1.2.22.26	1.2.22.26 Level computer display	å	I			
أ	Explosion-proof electric actuator for MOV					
1.2.22.27		ž	81			
1.2.22.28	EX	å	2			
1.2.22.29	1.2.22.29 Fire alarm panel	å	4			
1.2.22.30	1.2.22.30 Vale controller	ž	30			
1.2.22.31	1.2.22.31 Electric actuator	ž	30			
1.2.22.32	1.2.22.32 Control board for pump control valve	8 N	7			
1.2.22.33	1.2.22.33 Fire alarm push button box	S _N	-7			
		1				

DIVISION 1 FUEL STORAGE DEPOT

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No.	Item No. Description of Works		Unit Quantity	Foreign Cost Component (Yen)	Component 1)	Local Cost Component (China RMB)	Component RMB)	Combined Total
•	PRIME PRIME CO. C.		į	Rate	Amount	Rate	Amount	China RMB
1.3	Section-3 Water Supply and Fire	Fighting						
1.3.1	Depot Area							
1.3.1.1	Water supply cast iron pipe Dg200	ш	255					
1.3.1.2	Water supply east iron pipe Dg100	E	430					
1.3.1.3	Galvanized steel pipe Dg80	m	70					
1.3.1.4	Galvanized steel pipe Dg65	EL .	88					
1.3.1.5	Galvanized steel pipe Dg50	m	10					-
3.1.6	Galvanized steel pipe Dg32	ш	09					
.3.1.7	Galvanized steel pipe Dg25	ш	35		-			
1.3.1.8		ü	09					
1.3.1.9	Gate valve Z44T-10 Dg200	No	3					
1.3.1.10	Gate valve Z44T-10 Dg100	No.	2					
.3.1.11	Gate valve Z44T-10 Dg80	°N						
1.3.1.12	Gate valve Z44T-10 Dg65	ટ્ટ	۳					
.3.1.13	Gate valve Z44T-10 Dg50	No	1					
1,3,1,14	Stop valve J11X-10 Dg32	οχ	1	}				
.3.1.15	Stop valve J11X-10 Dg25	No	2					
1.3.1.16	Stop valve JIIX-10 Dg20	% N	4					
.3.1.17	ydrant	No	5					
1.3.1.18	Water meter LXL200	oN.	1					
13.1.19	_	S.	17					
1.3.1.20	Drainage concrete pipe Dg500	m	264					
1.3.1.21		m	1700					
1.3.1.22	Drainage concrete pipe Dg300	m	510					
1.3.1.23	Drainage concrete pipe Dg200	ш	1285					
1.3.1.24	_7	ž	1					
1.3.1.25	Valve Dg400	No.	4					
1.3.1.26	Outfall valve well	No	4					3 3 1
1.3.1.27	Sewage drain manhole	No	62					

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No.	Description of Works	Works	Cuit	Quantity	Foreign Cost Component (Yen)	omponent	Local Cost (China	Local Cost Component (China RMB)	Combined
-1					Rate	Amount	Rate	Amount	China RMB
	Storm sewage drain manhole	ole	8 N	89					
1.3.1.29 Septic tank	nk	No.1	°N.	4					
1.3.1.30 Grease separator	parator	No.2	ટ્ટ	2					
1.3.1.31 Grease separator	parator	No.3	ž	2					
1.3.1.32 Duplex storm inlet	orm inlet		ટ્ટ	83					
1.3.1.33 Single storm inlet	rm inlet		ટ	7					
2.3 Thank A.							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
T									
7	ľ	Dg300	E	835					
1.3.2.2 Seamless steel pipe		Dg250	m	820					
		Dg200	ш	780					
		Dg150	E	420					
1.3.2.5 Seamless steel pipe		Dg100	E	760					
1.3.2.6 Seamless steel pipe		Dg70	E	80					
1.3.2.7 Motor op	Motor operaated valve								
	Z942H-16C	Dg150	ટ્ર	18					
1.3.2.8	Z942H-16C	Dg100	ž	12					
7	RVHX-0300	Dg300	ટ્ટ	9					
7	RVHX-0300	Dg250	οχ	낙					
		Dg200	No No	18					
	RVHX-0300	Dg50	No	12					
7	Q41F-16C	Dg200	No.	12					
Ball	Q41F-16C	Dg150	No.	12					
	O41F-16C	Dg100	Š	12					
- 1	Q41F-16C	Dg50	No	9					
1.3.2.17 High pres	pressure foam generator	ator	No No	12					
	PCYI	PCY1800G							
1.3.2.18	PUVIZENC	2600							

DIVISION I FUEL STORAGE DEPOT

Foreign Coart Component Foreign Coart Coar	hangh	Shanghai Pudong International Airport Project (Fuel Supply System)	Fue	uppix Syste	Cm)				V. S. Indiana
Poscription of Works Unit Quantity Rate Amount Rate Amount Amount Rate Amount Amount Rate Rate Amount Rate Rate Amount Rate R	l em				Foreign Cost	Component	Local Cost	Component	Comoined
Air foam-water moniter PP32A No 8 Amount Rate Amount Pressure meter Y150 No 24 PR PR <t< td=""><td>Z</td><td>Description of Works</td><td>Unit</td><td>Quantity</td><td>(Ye</td><td>en)</td><td>(China</td><td>RMB)</td><td>Total</td></t<>	Z	Description of Works	Unit	Quantity	(Ye	en)	(China	RMB)	Total
Air foam-water moniter PP32A No Pressure meter Y150 No Water outlet cover KM65 No Pipe connection KM65 No Pipe connection KM65 No Check valve ZSXH Dg200 No Fire hose nozzle with valve QZ19 No Fire hose Dg65 No Fire hose Dg65 No Wheeled powder fire extinguisher MP9 No Vertical cound valve well Dg1600 No Flexible hose 16ZRH200F L2000 No Flexible hose 16ZRH200F L2000 m Drainage cast iron pipe Dg100 m Galvanize steel pipe Dg100 m Galvanize steel pipe Dg100 No Drainage manhole Dg100 No Drainage manhole Dg100 No Drainage manhole Dg100 No Drainage walve well No Drainage walve well No	2			,	Rate	Amount	Rate	Amount	China RMB
Pressure meter Y150 No Water outlet cover KM65 No Pipe connection KM65 No Check valve ZSXH Dg200 No Foam nozzle PQ16 No Fire hose nozzlc with valve QZ19 No Fire hose Dg500 No Vertical round valve well Dg1600 No Flexible hose 16ZRH200F L2000 No Flexible hose 16ZRH200F L2000 m Drainage cast iron pipe Dg100 m Galvanize steel pipe Dg100 m Galvanize steel pipe Dg100 No Drainage manhole Dg1000 No Drainage manhole Dg1000 No Drainage walve well No Water scaled well No	132.19		ŝ	8					
Water outlet cover KM65 No Pipe connection KM65 No Check valve ZSXH Dg200 No Foam nozzle PQ16 No Fire hose nozzle with valve OZ19 No Wheeled foak fire extinguisher No Wheeled foam fire extinguisher MF8 No Portalde foam fire extinguisher MF9 No Vertical round valve well Dg1600 No Flexible hose 16ZRH200F L2000 No Cli contaminated water treatment m Oil contaminated water treatment m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg1000 No Drainage valve well No Water sealed well No No	3 2 20		ο̈́Χ	24					
Pipe connection KM65 No Check valve ZSXH Dg200 No Foam nozzle PO16 No Fire hose nozzle (hook type) PG16 No Fire hydrant SS100 No Fire hydrant SS100 No Fire hydrant SS100 No Fire hose Dg65 No Wheeled powder fire extinguisher No Wheeled foam fire extinguisher MP9 No Portalde foam fire extinguisher MP9 No Vertical round valve well Dg1600 No Flexible hose 16ZRH200F L2000 M Flexible hose 16ZRH200F L2000 m Drainage cast iron pipe Dg200 m Galvanize steel pipe Dg1000 No Galvanize steel pipe Dg1000 No Drainage walve well No Drainage valve well No	13.2.21		å	32					
Check valve ZSXH Dg200 No Fire hose nozzle with valve OZ19 No Fire hose nozzle with valve OZ19 No Fire hose Dg65 No Wheeled powder fire extinguisher No Wheeled foam fire extinguisher MP9 No Portalde foam fire extinguisher MP9 No Vertical round valve well Dg1600 No Flexible hose 16ZRH200F L2000 No Flexible hose 16ZRH200F L2000 m Drainage cast iron pipe Dg200 m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg1000 No Drainage manhole Dg1000 No Drainage wall No Drainage valve well No Drainage valve well No Drainage valve well No Drainage valve well No	1.3.2.22		å	32					
Foam nozzle PO16 No Fire hose nozzle with valve QZ19 No Foam nozzle (hook type) PG16 No Fire hydrant SS100 No Fire hydrant SS100 No Fire hydrant SS100 No Wheeled powder fire extinguisher MF8 No Portalde powder fire extinguisher MF9 No Portalde foam fire extinguisher MF9 No Portalde foam fire extinguisher MF9 No Flexible hose 16ZRH200F L2000 No Flexible hose 16ZRH200F L2000 Mo Drainage cast iron pipe Dg200 m Galvanize steel pipe Dg100 m Galvanize steel pipe Dg100 No Galvanize steel pipe Dg100 No Drainage manhole Dg1000 No Drainage manhole Dg1000 No Drainage wall No Drainage valve well No Water sealed well	1 3.2.23		N _o	18			i i i i i i i i i i i i i i i i i i i		
Fire hose nozzle with valve OZ19 No Foam nozzle (hook type) PG16 No Fire hydrant SS100 No Fire hose Dg65 No Fire hose Dg65 No Wheeled foam fire extinguisher MF8 No Portalde foam fire extinguisher MF9 No Portalde foam fire extinguisher MF9 No Flexible hose 16ZRH200F L2000 No Flexible hose 16ZRH200F L2000 m Drainage cast iron pipe Dg200 m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg160 No Drainage manhole Dg1000 No Drainage walve well No Drainage walve well No	1.3.2.24		No	24					
Foam nozzle (hook type) PG16 No Fire hydrant SS100 No Fire hose Dg65 No Wheeled powder fire extinguisher No Wheeled foam fire extinguisher MF8 No Portalde foam fire extinguisher MF9 No Portalde foam fire extinguisher MF9 No Flexible hose 16ZRH200F L2000 No Flexible hose 16ZRH200F L2000 No Drainage cast iron pipe Dg100 m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg15 m Galvanize steel pipe Dg15 m Galvanize steel pipe Dg1000 No Drainage manhole Dg1000 No Drainage walve well No Drainage valve well No	13.2.25	with valve	Š	24					
Fire hydrant SS100 No Fire hose Dg65 No Wheeled powder fire extinguisher No Wheeled foam fire extinguisher MF8 No Portalde foam fire extinguisher MF9 No Portalde foam fire extinguisher MF9 No Flexible hose 16ZRH200F L2000 No Flexible hose 16ZRH200F L2000 No Drainage cast iron pipe Dg200 m Drainage cast iron pipe Dg32 m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg15 m Galvanize steel pipe Dg1000 No Drainage manhole Dg1000 No Drainage walve well No	1.3.2.26	ook type)	80	24					
Fire hose Dg65 No Wheeled powder fire extinguisher No Wheeled foam fire extinguisher No Portalde powder fire extinguisher MF8 No Portalde foam fire extinguisher MF9 No Vertical round valve well Dg1600 No Flexible hose 16ZRH200F L2000 No Flexible hose 16ZRH200F L2000 m Oil contaminated water treatment m Drainage cast iron pipe Dg200 m Galvanize steel pipe Dg32 m Galvanize steel pipe Dg1600 Mo Galvanize steel pipe Dg1600 No Drainage manhole Dg1000 No Drainage wall No Drainage wall No	13227	Fire hydrant SS100	No	20					
Wheeled powder fire extinguisher Wheeled foam fire extinguisher Portalde powder fire extinguisher MF8 Portalde foam fire extinguisher MF9 No Portalde foam fire extinguisher MF9 Vertical round valve well Disloom Flexible hose 16ZRHZ00F L2000 No Flexible hose 16ZRHZ00F L2000 No Flexible hose 16ZRHZ00F L2000 No Drainage cast iron pipe Dg1000 M Galvanize steel pipe Dg1000 M Galvanize steel pipe Dg1000 No Drainage manhole Drainage walle well No Drainage valve well No Water sealed well	1 3 2 28		No	20					
Wheeled foam fire extinguisher MF8 No Portalde foam fire extinguisher MF8 No Vertical round valve well Dg1600 No Flexible hose 16ZRH200F L2000 No Flexible hose 16ZRH200F L2000 Mo Coll contaminated water treatment mo Drainage cast iron pipe Dg200 m Drainage cast iron pipe Dg32 m Galvanize steel pipe Dg32 m Galvanize steel pipe Dg1600 Mo Drainage manhole Dg1000 No Drainage manhole Dg1000 No Drainage well No	1 3 2 29	Wheeled powder fire extinguisher	No	30					
Portalde powder fire extinguisher MF8 No Portalde foam fire extinguisher MP9 No Vertical round valve well Dg1600 No Flexible hose 16ZRH200F L2000 No Flexible hose 16ZRH200F L2000 Mo Drainage cast iron pipe Dg200 m Drainage cast iron pipe Dg100 m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg15 m Galvanize steel pipe Dg1000 No Drainage manhole Dg1000 No Drainage wall No Water sealed well No	1,3,2,30	Wheeled foam fire extinguisher	No	30					
Portalde foam fire extinguisher MP9 No Vertical round valve well Dg1600 No Flexible hose 16ZRH200F L2000 No Flexible hose 16ZRH200F L2000 No Drainage cast iron pipe Dg200 m Galvanize steel pipe Dg32 m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg1000 No Drainage manhole Dg1000 No Drainage manhole Dg1000 No Drainage valve well No	1.3.2.31	Portalde powder fire extinguisher MF8	No	40					
Vertical round valve well Dg1600 No Flexible hose 16ZRH200F L2000 No Oil contaminated water treatment m m Drainage cast iron pipe Dg200 m Galvanize steel pipe Dg32 m Galvanize steel pipe Dg155 m Galvanize steel pipe Dg1000 No Drainage manhole Dg1000 No Water sealed well No No	1.3.2.32	Portalde foam fire extinguisher	% N	40					
Flexible hose 16ZRH200F L2000 No Oil contaminated water treatment Orainage cast iron pipe Dg200 m Galvanize steel pipe Dg32 m Galvanize steel pipe Dg100 m Galvanize steel pipe Dg15 m Galvanize steel pipe Dg16 No Drainage manhole Dg1000 No Water sealed well No	13.2.33	Vertical round valve well	Š	9					
Oil contaminated water treatment Drainage cast iron pipe Dg200 m Drainage cast iron pipe Dg100 m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg15 m Drainage manhole Dg1000 No Drainage well No	13234	Flexible hose	S.	12					
Oil contaminated water treatment Drainage cast iron pipe Dg200 m Drainage cast iron pipe Dg32 m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg15 m Drainage manhole Dg1000 No Drainage walle well No									
Oil contaminated water treatment m Drainage cast iron pipe Dg200 m Drainage cast iron pipe Dg100 m Galvanize steel pipe Dg32 m Galvanize steel pipe Dg15 m Galvanize steel pipe Dg15 m Drainage manhole Dg1000 No Drainage valve well No Water sealed well No			_						
Drainage cast iron pipeDg200mDrainage cast iron pipeDg100mGalvanize steel pipeDg25mGalvanize steel pipeDg15mGalvanize steel pipeDg1000NoDrainage manholeDg1000NoDrainage valve wellNoWater sealed wellNo	1.3.3	Oil contaminated water treatment							
Drainage cast iron pipe Dg100 m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg15 m Galvanize steel pipe Dg1000 No Drainage manhole Dg1000 No Drainage valve well No Water sealed well No	1,3,3,1	Drainage cast iron pipe Dg200	ш	405					
Galvanize steel pipe Dg32 m Galvanize steel pipe Dg25 m Galvanize steel pipe Dg15 m Drainage manhole Dg1000 No Drainage valve well No Water sealed well No	1.3.3.2		E	15					
Galvanize steel pipe Dg25 m Galvanize steel pipe Dg15 m Drainage manhole Dg1000 No Drainage valve well No Water sealed well No	1.3.3.3		ш	12					
Galvanize steel pipe Dg15 m Drainage manhole Dg1000 No Drainage valve well No Water sealed well No	1334		Œ	\$					
Drainage manhole Dg1000 No Drainage valve well No Water sealed well No	1.3.3.5		Ħ	6					
Drainage valve well Water sealed well	1336		Š	18					
Water sealed well	1337	11	ž	ľ					
	1338	Water sealed well	ટ્ર	1					

Item	item	r uci	appre syst	Foreign Cost Component	Component	l Acai Coct	Acai Cost Component	Combined	Ĩ
o Z	Description of Works	Unit	Quantity	(Yen)	component	China	(China RMB)	Total	
				Rate	Amount	Rate	Amount	China RMB	
1.3.3.9	Sewage well	No	8						
1.3.3.10	Squatting type water closet	No	2						T
1,3,3,11	Stop valve Dg32	No.	1						Ī
1.3.3.12	Tap Dg15	No.	1						Ī
1.3.3.13	Floor drain Dg15	No	3						Ī
1.3.3.14	Cleanout Dg100	No	1						7
1.3.3.15	High efficient oil-water separator CYL-5	No	1						Ī
									T
									Ī
1.3.4	Fire Pump House								Ī
1,3,4,1	Foam mixure pump 200D-43*3	% N	3						Ī
1.3.4.2	Electric motor JR116-4	No	3						Ī
1.3.4.3	Fire fighting cooling water pump 8SH-6	No	4						Ť
1.3.4.4	Electric motor Y3158	No	4						Ī
1.3.4.5	Foam concentrate lift pump 1S50-32-125A	No	1						Ī
1.3.4.6	Self priming pump 51-4A	No	1						T
1.3.4.7	Solf actuated ON-OFF valve 700X-0200	oN.	7						Ī
1.3.4.8	Self actuated ON-OFF valve 600X-0300	Š	7						Ī
1.3,4,9	Quick joint	S S	2						T
1.3.4.10	Valve RVHX-0400	Š	1						T
1.3.4.11	Valve RVHX-0300	No	6					}	Ī
1.3.4.12	Valve RVHX-0250	No	2						Ī
1.3.4.13	Valve RVHX-0200	No	7						T
1.3.4.14	Valve RVHX-0150	No	2						Ī
1.3.4.15	Valve RVHX-080	No	2						Ī
1.3.4.16	Valve RVHX-065	S.	1						Ī
1.3.4.17	Valve RVHX-050	No	2	-					T

DIVISION 1 FUEL STORAGE DEPOT

NINE C	SHAIIBHAI CHOORE IIILEFHAUGHA AILDOLL CIOLECT (LEGG SUBDIY SYSTEM)	C ESE	July Child					
Item				Foreign Cost Component	Component	Local Cost Component	Component	Combined
So	Description of Works	Unit	Quantity	(Yen)	(u	(China	(China RMB)	Totai
				Rate	Amount	Rate	Amount	China RMB
1.3.4.18	Check valve SFCV-0050	No No	4					
1.3.4.19	Ball valve Q41F-16 Dg50	No	15					
1.3.4.20	Concentric reducer Dg200*125	No	4					
1.3.4.21	Eccentric reducer Dg300*200	No						:
1.3.4.22	Air foam proportioning blender PH48	No	9					
	Foam concentrate tank SWB-10	No	2					
	High pressure foam generator	No	3					
1.3.4.24	PCY1800G							
1.3.4.25	Mannual hinge hoist SG-2	No	1					
11.3.4.26	Mannual single-track cart	No	1					
1.3.4.27	"I"steel 36a	ш	40					
				•				

Item No	Item Description of Works		Init Ousatite	oreign C	Local Cost Component	onent	Combined
<u>.</u>	Castification of works	5	Camiling	Rate Amount	Rate An	Amount	China RMB
+ + + + + + + + + + + + + + + + + + +	Section-4 Oil Tank Foundation						
1.4.1	100000m ³ Tank Foundation						
1.4.1.1	Mixed-in-place pile(15%)	, m	25057.44				
1.4.1.2	Excavation	m,	2886.00				
1.4.1.3	Medium or coarse sand cushion (piles)	m³	2179.02				
1.4.1.4	RC subbase plate	"m	3037.80				
1.4.1.5	RC ring wall	m³	292.32		3-7-		:
1,4,1,6	Medium or coarse sand cushion	m ₃	4209.30				
1.4.1.7	Sand asphalt	m³	469.92				
1.4.1.8	Brick foundation	, uu	67.32				
1.4.1.9	(Concrete (D6cm)	m ²	121.50				
1.4.2	100m ³ Tank Foundation						
1.4.2.1	Compacted fill	100m³	0.66				
1.4.2.2	C10 concrete cushion	m³	6.17				
1.4.2.3	RC strip foundation	m³	6.65				
1.4.2.4	Footing beam	m,	8,13				
1.4.2.5	RC column	m ₃	3.60				
1.4.2.6	RC ring wall	m	8.43				
1.4.2.7	Steel platform	ton	4.65				
1.4.2.8	Steel stepladder	ton	89'0				

DIVISION 1 FUEL STORAGE DEPOT

Shangh	Shanghai Pudong International Airport Project (Fuel S	Fuel Supply System)	em)				
Item No.	Description of Works	Unit	Quantity	Foreign Cost	Foreign Cost Component (Yen)	Local Cost Component (China RMB)	Component RMB)	Combined Total
				Rate	Amount	Rate	Amount	China RMB
1.5	Section -5 Building							
1.5.1	Office Building 2.998m ²	.LS	•4					
	Steel products 154.97t							
	Timber 33.41m ³			ļ				
1.5.2	Fuel Pumps Shed 892m2	rs	Ĭ					
	Cemment 101.18t			-				
	Steel products 10.26t							
	Timber 10.76m³							
				1				
1.5.3	Fire Pumps House 344m2	T.S	I					
	Cemment 94.59t							
2	Steel products 13.84t							
	Timber 2.66m³							
1.5.4	Electrical Building and Control	rs	1					
	Room 607m ²							
	Cemment 180.38t	_						
	Steel products 23.78t			-				
	Timber 6,46m³							
1.5.5	Dining Hall 695m2	LS						
	Cemment 221.59t	-						
لب	Steel products 26.93t							
	Timber 6.65m³							

DIVISION 1 FUEL STORAGE DEPOT

Head Description of Works Unit Coreage Control Local Cost Component Local Cost Component Comba RMB Laboratory 302m² Ls 1 Rate Annount Rate Amount China RMB Laboratory 302m² Ls 1 Rate Annount Rate Amount China RMB Laboratory 302m² Ls 1 Rate Annount Rate Amount China RMB Laboratory 302m² Ls 1 Rate China RMB Limber 2.54m² Ls 1 Rate China RMB Limber 2.54m² Ls 1 Rate China RMB Limber 2.55m² Ls 1 Rate China RMB Limber 2.55m² Ls 1 Rate Rate Limber 2.55m² Limber 0.55m² Lis 1 Rate Rate Limber 3.51m² Limber 0.55m² Limber 0.51m² Lis Limber 0.51m² Limber 0.51m² Limber 0.51m² Limber 0.51m² Limber 0.51m² Limber 0.51m² Limber 0.51m² Limber 0.51m² Limber 0.51m² Limber 0.51m² Limber	Shang	hai Pudong International Airport Project	(Fuel S	upply Syst	em)				
Laboratory 302m² LS 1 Rate Amount Rate Amount Cemment 80.17 Cemment 80.17 Steel products 11.25t LS 1 Rate Amount Cemment 7.25tm² LS 1 Rate Products 11.25t Maintenance Building 306m² LS 1 Rate Planmable material 312 LS 1 Rate Products 9.51t Timber 2.62m³ LS 1 Rate Products 9.51t Timber 2.52m³ LS 1 Rate Products 12.71t Steel products 12.71t LS 1 Rate Products 1.25m³ LS 1 Rate Products 1.25m³ LS 1 Rate Products 0.73t Timber 0.55m² LS 1 Rate Products 0.73t Timber 0.55m² Rate Products 2.21t Timber 0.51m² Rate Products 2.21t Timber 0.51m² T	Litem No.	Description of Works	Unit	Quantity	Foreign Cos	st Component (en)	Local Cost (China	Component RMB)	Combined Total
Laboratory 302m² LS 1 1 1 1 1 1 1 1 1					Rate	Amount	Rate	Amount	China RMB
Steel products 11.25t Timber 2.64m² Timber 2.64m² LS Maintenance Building 306m² LS Cemment 74.25t Steel products 9.51t Timber 2.62m³ LS Cemment 132.71t Steel products 12.76t LS Cemment 132.71t LS Cemment 13.76t LS Cemment 2.55m³ LS Cemment 3.7m² LS Cemment 3.7m² LS Cemment 3.7m² LS Cemment 3.7m² LS Timber 0.35m³ LS Cemment 17.48t LS Cemment 17.48t Cemment 17.48t Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m² Timbe	1.5.6		ST						
Steel products 11.25t Timber 2.64m³ LS Maintenance Building 306m² LS Cemment 74.25t LS Steel products 9.51t Timber 2.62m³ LS Cemment 132.71t Steel products 12.76t LS Cemment 132.71t LS Cemment 8.59m³ LS Cemment 8.59m³ LS Cemment 8.59m³ LS Cemment 8.59m³ LS Timber 0.35m³ LS Cemment 17.48t Steel products 2.21t Timber 0.35m³ Timber 0.35m³ Timber 0.35m³ LS Cemment 17.48t Steel products 2.21t Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m³ Timber 0.51m² Timber 0.51m³ Timber 0.51m² Timber 0.51m² Timber 0.51m³ Timber 0.51m² T									
Timber 2.64m² LS Maintenance Building 306m² LS Cemment 74.25t LS Steel products 9.5tt Timber 2.62m³ LS Cemment 132.7tt Steel products 12.76t LS Cemment 8.59t LS Cemment 132.7tt LS Cemment 1.54t LS Cemment 17.48t Steel products 2.2tt Timber 0.51m³ LS Cemment 17.48t Steel products 2.2tt Timber 0.51m³ LS Cemment 17.48t Steel products 2.2tt Timber 0.51m³ LS Timber 0.51m³ LS Cemment 17.48t		Steel products 11.25t							
Maintenance Building 306m² LS Cemment 74.25t LS Steel products 9.5tt LS Timber 2.62m³ LS Cemment 132.7tt LS Cemment 132.7tt LS Guard 37m² LS Cemment 8.59t LS Steel products 0.73t LS Timber 0.35m³ LS Oil Separator 59m² LS Cemment 17.48t LS Steel products 2.21t Limber 0.51m³		Timber 2.64m³							
Maintenance Building 306m² LS Cemment 74.25t LS Steel products 9.5tt LS Timber 2.62m³ LS Cemment 132.7tt LS Cemment 132.7tt LS Cemment 132.7tt LS Cemment 8.59t LS Cemment 8.59t LS Steel products 0.73t LS Oil Separator 59m² LS Cemment 17.48t LS Steel products 2.21t Timber 0.51m³ Timber 0.51m³ Timber 0.51m³									
Cemment 74.25t Steel products 9.51t Timber 2.62m³ Warehouse for Flammable material 332 LS Cemment 132.71t Steel products 12.76t Timber 2.55m³ Cemment 8.59t Steel products 0.73t Timber 0.35m³ Oil Separator 59m² Cemment 17.48t Steel products 2.21t Timber 0.51m³ Timber 0.51m³	1.5.7		รา	_					
Steel products 9.51t Timber 2.62m³									
Timber 2.62m³		Steel products 9.51t							
Warehouse for Flammable material 332 LS Cemment 132.71t Steel products 12.76t Timber 2.55m³ Cemment 8.59t Steel products 0.73t Timber 0.35m³ Oil Separator 59m² Cemment 17.48t Steel products 2.21t Timber 0.51m³		Timber 2.62m³							
Warehouse for Flammable material 332 LS Cemment 132.71t 2.56t Steel products 12.76t LS Cuard 37m² LS Cemment 8.59t LS Steel products 0.73t LS Timber 0.35m³ LS Cemment 17.48t LS Steel products 2.21t Timber 0.51m³ Timber 0.51m³ Imber 0.51m³									
Cemment 132.71t Steel products 12.76t Timber 2.55m³ Cemment 8.59t Steel products 0.73t Timber 0.35m³ Oil Separator 59m² Cemment 17.48t Steel products 2.21t Timber 0.51m³ Timber 0.51m³	1.5.8	Warehouse for Flammable material 332							
Steel products 12.76t Timber 2.55m³ Guard 37m² LS Cemment 8.59t LS Steel products 0.73t Timber 0.35m³ Oil Separator 59m² LS Cemment 17.48t Steel products 2.21t Timber 0.51m³		Cemment 132.71t	<u>L</u>						
Timber 2.55m³ LS Guard 37m² LS Cemment 8.59t LS Steel products 0.73t LS Timber 0.35m³ LS Cemment 17.48t LS Steel products 2.21t Timber 0.51m³ LS		Steel products 12.76t							
Guard 37m² LS Cemment 8.59t LS Steel products 0.73t LS Timber 0.35m³ LS Oil Separator 59m² LS Cemment 17.48t LS Steel products 2.21t Timber 0.51m³	ليد	Timber 2.55m³							
Guard 37m² LS Cemment 8.59t LS Steel products 0.73t LS Timber 0.35m³ LS Oil Separator 59m² LS Cemment 17.48t LS Steel products 2.21t Timber 0.51m³									
Steel products 0.73t Timber 0.35m³ Oil Separator 59m² Cemment 17.48t Steel products 2.21t Timber 0.51m³	1.5.9		rs.	-					
Steel products 0.73t Timber 0.35m³ Oil Separator 59m² Cemment 17.48t Steel products 2.21t Timber 0.51m³		Cemment 8.59t							
Timber 0.35m³ Oil Separator 59m² Cemment 17.48t Steel products 2.21t Timber 0.51m³		Steel products 0.73t							
Oil Separator 59m² Cemment 17.48t Steel products 2.21t Timber 0.51m³		Timber 0.35m³							
Oil Separator 59m* Cemment 17.48t Steel products 2.21t Timber 0.51m³		ı							
Steel products 2.21t Timber 0.51m³	15.10	- 1	LS						
Steel products 2.21t Timber 0.51m³		Cemment 17.48t							
Timber 0.51m³		Steel products 2.21t							
		Timber 0.51m³							

DIVISION 1 FUEL STORAGE DEPOT

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hang	Shanghai Pudong International Airport Project (Fuel Supply System)	(Fuel S	Supply Syst	cm)					r
No.	Description of Works	Cnit	Quantity	Foreign Cost	Foreign Cost Component (Yen)	Local Cost Component (China RMB)	Component RMB)	Combined Total	
				Rate	Amount	Rate	Amount	China RMB	
1.5.11	2,000m3 Water Ponds	LS	7					and and other section is a section of the section o	×
	Cemment 399.6t								
	Steel products 68.61t								7==
	Timber 68.64m³								7
									
5.12	Fire Dike 1,032m	TS	 (T==
	Cemment 136.59t								7
	Steel products 3.861								7
	Timber 4.09m³								T
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Nuang	hai Pudon	Shanghai Pudong International Airport Project (Fuel Supply System)	cet (Fue	I Supply Sy	stem)				
No H		Description of Works	Chrit	it Ouantity	Foreign Co	Foreign Cost Component	Local Cost Component	omponent	Combined
			:) 			,	(CIRINA NIVID)	VID)	i Otai
					Kate	Amount	Rate	Amount	China RMB
9.	Section-6	Air-conditioner and	Ventilation	-					
1.6.1	VRV air-		ž	7					
	Outdoor	RSXY10K							
		N=7.62KW							
		U≂380V							
	_								
									7.46
7.0.7	Indoor	FXYC100KV O,=11.2KW	No	73					
		Q _H =12.5KW							
		W=90W	_					-	
		U=220V	-						
			-						
			-						
			+						
7.0.7	MOODIN	FAYCORV Q;=5.6KW	Ž	21					
		Q _H =6.3KW							
		N=20W							
		U=220V							
									,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
1.6.4	Indoor	FXYC25KV QL=2.8KW	No	40					
	-	Q _H =3.2KW							
		N=15W							
		U=220V							
								-	
						7			

DIVISION I FUEL STORAGE DEPOT

Item	Item Fo			Foreign Cos	Foreign Cost Component	Local Cost	Local Cost Component	Combined	
ò Z	Description of Works	Unit	Quantity	(\)	(Yen)	(China	(China RMB)	Totai	<u> </u>
				Rate	Amount	Rate	Amount	China RMB	<u> </u>
1.7	Section-7 Earthwork								
1.7.1	Earthwork						and a		
1.7.1.1	Fine soil	, u	88069						
1.7.1.2	Transporting soil 2KM	1	140153.4						
1.7.1.3	Excavation	100 m ²	82						<u> </u>
1.7.1.4	Back filling	100 m ²	778.63				•		
				-					Ē
1.7.2	Road								Ĭ
1.7.2.1	C30 Cement concrete 22CM	100 m²	129						
1.7.2.2	2CM Fine stone levelling	100 m ²	141.5						Ī
1.7.2.3	15CM Second coat crushed stone	100 m ²	141.5						
1.7.2.4	15CM Second coat crushed stone	100 m²	141.5						
		-							
1.7.3	Sodding	100 m²	290						
1.7.4	Fence wall	100 m ²	39						
									-5-5
1.7.5	Gate	E.	09						٦
		_							
									1

1

No. Description of Works Unit Quantity Control Contr	Shangi	iai Fudong International Airport Project	T ac	ake Aiddns	Em)	Component	100.) [000]	- Louise Comment	100 mg/
Section-8 Wire Communiction No 15	Š	Description of Works	Chit	Quantity	(Y)	en)	China	RMB)	Total
Section-3 Wire Communication Radiotelephone No 1 Facsimile recorder No 1 Facsimile recorder No 1					Rate	Amount	Rate	Amount	China RMB
Radiotelephone No Facsimile recorder No Facs	1.8								
Facsimile recorder	1.8.1	Radiotelephone	οN	15					
Facsimile recorder									
Facsimile recorder									
	1.8.2	Facsimile recorder	§ Ž						
					·				
								15-	

DIVISION I FUEL STORAGE DEPOT

Shanghai	Shanghai Piidong International Airport Project (Fuel Supply System	ruci Su	pply System					
Item				Foreign Cost Component	Component	Local Cost	Local Cost Component	Combined
No.	Description of Works	Chit	Quantity	(Ycn))	(China	(China RMB)	Total
				Ratc	Amount	Ratc	Amount	China RMB
	DIVISION 2 FUEL SUPPLY DEPOT)T						
2.1	Section-1 Fuel Equipment							
2.1.1	Tank							
2.1.1.1	25M' Drum tank	No	, ,					
2.1.2	Tank Accessories							
2.1.2.1	Manhole Dg600	No	1					
2.1.2.2	T type gauge cap Dg100	No	1					
2.1.3	Filter							
2.1.3.1	Filter separator O=120m³/h	No	7		*****			
2.1.3.2	Pre-filter O=120m³/h	No	2					
2.1.3.3	Breather valve	No	4					
2.1.4	Valve							
2.1.4.1	Gate valve Pg16 Dg200	No	7					
	Gate valve Pg16 Dg150	No	10					
2.1.4.2	Globe valve Pg16 Dg200	No	8					
	Globe valve Pg16 Dg150	No	4					
_	Globe valve Pg16 Dg100	No	1					
	Ball valve Pg16 Dg80	Š	1					
	Ball valve Pg16 Dg25	ĝ	8					

Shangha	ii Pudong International Airport Project ()	Fuel St	ipply Syster	(m			
Itcm No.	Item No. Description of Works Unit Quantity	Unit	Quantity	ê.	Local Cost Component (China RMB)	Component (SMB)	Combined Total
				Rate Amount	Rate	Amount	China RMB
2.1.4.3	Check valve Pg16 Dg200	ON	4				
2.1.4.4	Needle valve J13H-160e6 Pg16 Dg15	ŝ	7				
			į				
2.1.5	Facilities for Refuelling		-				
2.1.5.1	nection	οχ	2				
2.1.5.2	Refuelling hose Pg6 Dg65	No	4				
		;					
2.1.2.3	Onit valve HYJ-638	S.	4				
2.1.5.4	Hydrant pit box	Š	1				
2.1.5.5	Hydrant valve	ŝ	1		-		
2.1.5.6	Hydrant trip valve	ŝ					
						-	
2.1.5.7	4"API hose coupler	å	1				
		j					
2.1.2.8	4 remelling hose	ŝ	1			4 - 53	
		Į					

DIVISION 2 FUEL SUPPLY DEPOT

Shanghai	Shanghai Pudong International Airport Project (Fuel Supply System)	nel Su	oply Syster	m)				
Item	Decembers of Works	Trit	Our trib	Foreign Cost Component	mponent	Local Cost Component	Component	Combined
		į	Commercial	Rite	Amount	Rate	Amount	China RNB
				-	This dist	LIGHT.	Philodall	CHERT WITH
2.1.6	Facilities							
2.1.6.1	Hand pump	No	1					
						,		
2.1.6.2	Milipore sampler	Š	2					
						- 		
2.1.6.3	Surge absorber	ટ્ર						
2.1.6.4	Pressure regulator Dg150	S.	1					
2.1.7.	Vehicles							
2.1.7.1	Local-built servicer	No.	9					
2.1.7.2	Imported refueler 47M ³	No.	4					
2.1.7.3	Local-built refueler 47M ⁵	No.	3					
2.1.7.4	Imported 1000GPM servicer	No.	9					
2.1.7.5	Multipurpose vehicle	No.	2					
2.1.7.6	10M² tank rolly	No.	2					
2.1.7.7	Truck for pumping oil	No.	1					
2.1.7.8	10M ³ transport truck	No.	,- 4					
2.1.7.9	Cleaning vehicle	No.	1					
			:					

DIVISION 2 FUEL SUPPLY DEPOT

Shangha	Shanghai Pudong International Airport Project (Fuel Supply System)	rport Project (Fuel Su	pply Syste	m)					
Itcm			:		Forcign Cos	Foreign Cost Component	Local Cost	Local Cost Component	Combined	
S	Description of Works	Vorks	ii C	Quantity		(Ycn)	(China	(China RMB)	Total	
					Rate	Amount	Rate	Amount	China RMB	****
2.1.10	Pipe Material									T
2.1.10.1	X52 seamede pipe	Dg300	E	100						T
	(SYS297-91)	Dg250	m	55						T
		Dg200	ш	100						Ī
		Dg150	E	95						7=
										T
2.1.10.2	20" Scamless steel pipe	Dg.100	m	10						T
	(GB8163-87)	Dg80	ш	45						Ŧ
		Dg50	æ	01						7
		Dg25	E	85						T
		SIZG.	E	20						T
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DIVISION 2 FUEL SUPPLY DEPOT

	Combined Total	China RMB				-						 	 								
	Component RMB)	Amount																			
	Local Cost Component (China RMB)	Rate														-3-					
	Component (n)	Amount																			
(e	Foreign Cost Component (Yen)	Ratc																			
Fuel Supply System)	Quantity				1	2		1	6		9	70	100		029		438	330	2	ĭ	
uel Su	Cnit		nent		No	No		No	No		ON	w	æ		uu		ш	ш	No	Š	
Shanghai Pudong International Airport Project (F	Description of Works		Section-2 Power Supply and Instrume	Flow meter	Type turbire meter 6"	Type turbire meter 4"		Standard flow meter 6"	Bourdon pressure gauge Y-100 0~1.6Pa	Neddle valve	M20*1.5 GI/2" PN 1.6Mp	Control cable PVC/SWA/PVC-0.5KV 2*2.5	PVC/SWA/PVC-0.5KV 2*1.5	Power cable	PVC/SWA/PVC-1KV 3*6+1*4		Galvanised conduit G20	SID	Explosion-proof control station	Electostatic gounding rod	
Shanghai	Itcm No.	-	2.2	22.1	22.1.1	2.2.1.2		2.2.2	2.2.3	22.4		2.2.5	2.2.6	2.2.7			2.2.8	2.2.9	2.2.10	22.11	

DIVISION 2 FUEL SUPPLY DEPOT

tcm							
ģ	Item No. Description of Works Unit Quantity	Chait	Quantity	Ğ.	Local Cost Component (China RMB)	omponent MB)	Combined Total
				Rate Amount	Rate	Amount	China RMB
2.2.12	Grounding conductor copper 40*4	æ	350				
22.00	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	;	- Annie				
4.4.13	ביח חז כומכונסתכ	ο Ž	52				
22.14	Lightning protection copper De8	8	530				
2.2.15	Power distribution board	ž	2				
	Lighting						
2.2.16	Fluorescent fitting 2*40W	No	201				
2.2.17	Street lighting 4*40W H=5.5m	No	12				
2.2.18	Flood light 4*100W H=15m	No	2				
	Receptacle						
2.2.19	2-Gange receptacle	No.	105				
2.2.20	Flush mounted switch 250V,10A	ő	41				
2221	Wire cable PVC/SWA/PVC-0.5KV 2.5	E	1150				
2222	PVC/SWA/PVC-0.5KV 4	E	1100				
		-					
2.2.23	Distribution board	No	I				

DIVISION 2 FUEL SUPPLY DEPOT

	Description of Works	Chit	Quantity	C	(Yen)	(China RMB)	RMB)	Total	
				Rate	Amount	Rate	Amount	China RMB	
	Section-3 Water Supply and Fire Fig	ghting							
	Outdoor Water Supply and Drainage								
\Box	Galvanized steel pipe Dg25	æ	09						
ĺ	Cast iron pipe for water supply Dg80	ш	65						
23.1.3 Cas	Cast iron pipe for water supply Dg100	ш	06						
		ш	15						
23.1.5 Fer	Ferroconcrete pipe for drainage Dg300	ш	200						
23.1.6 Fer	Ferroconcrete pipe for drainage Dg400	m	100						
23.1.7 Gat	Gate valve Dg25	No	1						
2.3.1.8 Gal	Gate valve Dg80	No	5						
23.1.9 Wc		No	1						
2.3.1.10 Wc		No	4						
23.1.11 Dr	Drainage well Dg1000	No	6						
23.1.12 Fir	Fire hydrant	No	2						
23.1.13 Wa	Water indicator LXLtype Dg100	No	1				-		
23.1.14 Wa	Water indicator LXL type Dg200	٥N	1				}		
23.1.15 We	Well for water indicator	No	2						
	Storm water inlet	No	7						
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				-					

DIVISION 2 FUEL SUPPLY DEPOT

Shangh	Shanghai Pudong International Airport Project (Fuel Supply System)	Fuel Su	pply Syster	(uu)					
Item No.	Description of Works	Unit	Quantity	FO	mponent	Local Cost Component (China RMB)	Component RMB)	Combined	
				Rate /	Amount	Ratc	Amount	China RMB	
2.4	Section-4 Building								-
2.4.1	Office Building 1.650m ²	ST	7						
	Comment 366.8t								-
	Steel products 59.12t								
	Timber 15.2m ³								
2.4.2	Servicer & Refueller Parking 1,909m2	23	_						
	Cemment 525,01t								<u> </u>
	Steel products 79.65t								
	Timber 14.51m ³								
2.4.3	Guard 37m ²	S							
	Cemment 8.59t								
	Steel products 0.73t								
	Timber 0.35m3								
2.4.4	Car Washing	SI	 1		-				
	Comment 3.38t								
2.4.5	Refueller Loading	ST	2						
	Cerument 12.72t								
2.4.6	Servicer Test 64m	LS.							
	Cemment 13t	1	13						-
									2
24.7	Hydrant Valve Test 50m ²	57	ĭ						-
	Cemment 10.7t								
		~							
									_

DIVISION 2 FUEL SUPPLY DEPOT

Shangha	Shanghai Pudong International Airport Project (I	nel Su	Fuel Supply System)	n)				
Item No.	Description of Works	Unit	Quantity	Foreign Co	Foreign Cost Component (Yen)	Local Cost Component (China RMB)	I Cost Component (China RMB)	Combined Total
			-	Rate	Amount	Rate	Amount	China RMB
2.5	Section-5 Air-conditioner and Ventilation	tion						
2.5.1	Fan-coil unit SHF-LP(H) 400	No	52					
	O ₁ =2350W							
	M09=N							
2.5.2	Fan-coil unit SHF-LP(H) 800	ž	3					
	O _L =6440W							
	N=167W							
	U=220V							
2.5.3	Stop valve Dg80	ģ	2					
		No	2					
	Dg50	°Z	8					
	Dg20	°Z	116					
2.5.4	Galvarnized steel pipe Dg80	ε	10					
	Dg70	ш	30					
	05gQ	æ	160					
	Dg40	ш	09					
	Dg32	æ	09					
	D ₂ 25	E	210					
	Dg20	E	230					
		æ	230					
2.5.5	Automatic exhaust valve 2P-1	No	8					

DIVISION 2 FUEL SUPPLY DEPOT

Shangha	Shanghai Pudong International Airport Project (Fuel Supply System)	Fuel Su	pply Syster	m)				
Item No.	Description of Works	Cnit	Quantity	Foreign Cost Component (Yen)	Component	Local Cost (China	Local Cost Component (China RMB)	Combined
	11			Rate	Amount	Rate	Amount	China RMB
2.6.	Section-6 Earthwork							
2.6.1	Earthwork							
2.6.1.1	Excavation	E.	378					
2.6.1.2	Back filling	m	1551					
2.6.2	Paving							
2.6.2.1	C30 Cement concrete 24CM	100 m ²	06					
2.6.2.2	C30 Cement concrete 2 CM	100 m ²	06					
2.6.2.3	2CM Fine stone levelling	100 m ²	96					
2.6.2.4	15CM Second coat crushed stone	100 m ²	96				3	
2.6.2.5	15CM Second coat crushed stone	100 m ²	96					
2.6.3	Sodding	100 m ²	35					
2.6.4	Gate	m ₂	52					
2.6.5	Fence wall	100 m ²	11.8					
							-W=E	

DIVISION 2 FUEL SUPPLY DEPOT

	Item No. Description of Works Unit Quantity	Unit	Quantity	Foreign Cos	Foreign Cost Component (Yen)	Local Cost Component (China RMB)	Component RMB)	Combined Total
				Ratc	Amount	Rate	Amount	China RMB
Ş	Ŏ							
Eg	Radiotelephone	Ş	20					
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	THE PARTY OF THE P							
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DIVISION 2 FUEL SUPPLY DEPOT

Item	Item		4	Forcign Cost Component	Component	Local Cost Component	Component	Combined
Š.	Description of Works	Chit	Quantity	(Ycn)	cn)	(China RMB)	RMB)	Total
			:	Rate	Amount	Ratc	Amount	China RMB
	DIVISION 3 FUEL HYDRANT PIL	PIPING						
3.1	Section-1 Facilities for Apron Refuelli	elling						
3.1.1	Facilities for Apron Refuelling							
3.1.1.1	4" Hydrant Valve	No	**************************************					
3.1.1.2	Pit box	°Z	84					
3.1.1.3	Drain valve	°Z	23					
3.1.1.4	Vent valve	So.	5					
3.1.1.5	Pit box (D147 type)	No	28					
3.1.1.6	4" API hose coupler	oN	2					
3.1.1.7	Cover of refuelling well Dg700	No	16					
3.1.1.8	Cover of refuelling well Dg400	°Z	16					
3.1.2	Valve							
3.1.2.1	Twin seal high-integrity positive-shutoff							
	valve Pg16 Dg600	No	14					
	Pg16 Dg300	Ν̈́	10					

DIVISION 3 FUEL HYDRANT PIPING

Shangh	iai Pudong International Airport Project	(Fuel S	bys ylaan	(m _o					
Itcm No.	Item No. Description of Works Unit Quantity	Unit	Quantity	Foreign Cost Component (Yen)	Component n)	Local Cost (China	Local Cost Component (China RMB)	Combined Total	
	T I			Rate	Amount	Rate	Amount	China RMB	
3.1.3	Pipe Material								٦F
3.1.3.1		8	130						7
		ε	11104						7
		£	33						1
	05£3C	ε	*						7
									T
									7*
3.1.3.2	X52 Scarned pipe Dg300	E	3646						7=
		E	2608						7
		£	412						7
									7=
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DIVISION 3 FUEL HYDRANT PIPING

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Itcm	ltem F			Foreign Co.	Foreign Cost Component	Local Cost	Local Cost Component	Combined
Š.	Description of Works	Unit	Quantity		(Yen)	(China	(China RMB)	Total
				Ratc	Amount	Rate	Amount	China RMB
3.3	Section-3 Cathodic protection system	je je						
3.3.1	C	No	164					
3.3.2	Packing: bentonitic 55%	Kg	13530					
	gypsum	Kg	6150					
	mirabilite 20%	Kg	4920					
3.3.3		E	1910					
3.3.4	Dective pole	No.	18					
3.3.5	Dective well (D147 type)	ŝ	14					
3.36	Coppersultate reference electrode	No	2					
		-						
		-,						
							}	
	==	_						

DIVISION 3 FUEL HYDRANT PIPING...

	Combined Total	China RMB																		
	Local Cost Component (China RMB)	Amount																		
	Local Cost (China	Ratc																		
	Foreign Cost Component (Yen)	Amount																		
em)	Foreign Cost (Ye	Ratc																		
upply Syste	Quantity					4,400														
(Fuel S	Ċ.					ш				į	ļ					-				
Shanghai Pudong International Airport Project (Fuel Supply System)	Description of Works		Section-4 Flight Information System	Computer display system(out of scope)	LAN (Local Arca Network) cable	PVC/SWA/PVC-0.5KV 1P*1														
Shangh	No.		3.4	3.4.1	3.4.2															

DIVISION 3 FUEL HYDRANT PIPING

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PART-2 GRAND SUMMARY

O STATE OF



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	Combined	lotal	China RMB																				
	Component	KMB)	Amount																				
	Local Cost Component	(China KMB)	Rate																				
	Component	(r;	Amount																	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
128)	orcign C	(Ycn)	Rate																				
TOTAL STATE		Quantity [
		E E C																					
Silangual Lucong International Arr porce I Porce (1 act or porce)		Description of Works		Grand Summary	DIVISION-1 Fuel Storage Depot	DIVISION-2 Fuel Supply Depot		DIVISION-3 Fuel Hydrant Piping		Subtotal of Bills (Item 1 to 3)	Specified Provisional Sums Included in	Subtotal of Bills		Total of Bills Less Specified Provisional	Sums (A-B)	Add Provisional Sums for Contingencies	Allowance	Tender Price(A+D)	(Carried forward to Form of Tender)				
Stratige	Itcm	ż			1	2		3	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	4	В			U		Ω							



JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

SCIENCE AND TECHNOLOGY COMMISSION OF SHANGHAI MUNICIPAL PEOPLE'S GOVERNMENT, PEOPLE'S REPUBLIC OF CHINA

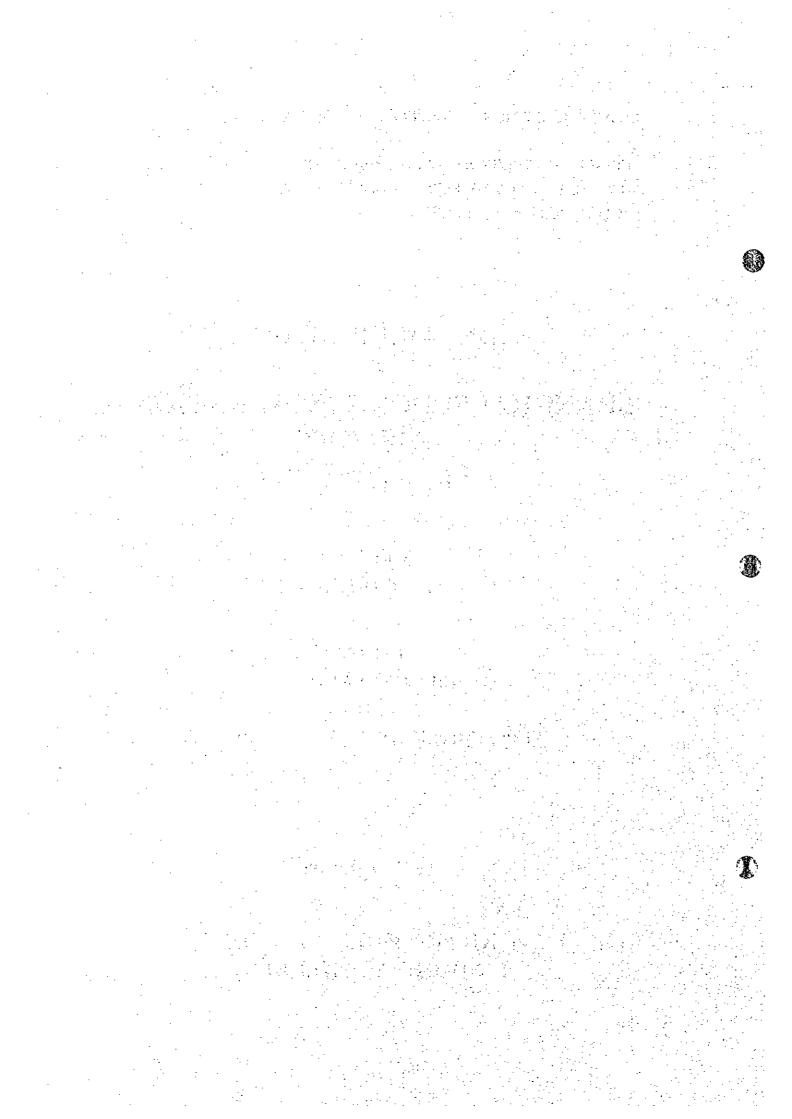
DETAILED DESIGN OF SHANGHAI PUDONG INTERNATIONAL AIRPORT FINAL REPORT

VOLUME III TENDER DOCUMENT

PART V-4
BILL OF QUANTITIES
FOR
FIRE FIGHTING AND RESCUE FACILITIES

SEPTEMBER 1997

NIPPON KOEI CO., LTD. NIKKEN SEKKEI LTD.



PEOPLE'S REPUBLIC OF CHINA SHANHAI MUNICIPAL PEOPLE'S GOVERNMENT

SHANGHAI PUDONG INTERNATIONAL AIRPORT PROJECT FINAL REPORT

TENDER DOCUMENT PART V-4 BILL OF QUANTITIES FOR FIRE FIGHTING AND RESCUE FACILITIES

TABLE OF CONTENTS

Claus	se	Page
SEC	TION 1: PREAMBLE	
1.1	Introduction	1
1.2	General	1
	TION 2: PRELIMINARY AND GENERAL ITEMS	
2.1	Contractual Items	3
2.2	Specification Items	3
	TION 3: DIRECT WORKS	
	Method of Measurement	
3.2	Measured Works	5

:

PREAMBLE TO BILL OF QUANTITIES

SECTION 1: PREAMBLE

1.1 INTRODUCTION

1.1.1 The Bill of Quantities (Schedule of Unit Rates, Prices and Quantities) comprises the following parts:

Preamble
Preliminary And General Items
Direct Works
Grand Summary

August 188

The Grand Total on the General Summary Sheet shall equal the amount of the estimated Contract Price set forth in the Form of Tender.

- 1.1.2 The Bill of Quantities shall be used by the Shanghai Municipal People's Government (the Employer) and or the Engineer for:
 - a) bid evaluations purposes
 - b) the basis of remeasurement and valuation of estimated quantities
 - c) the basis of evaluation for any variations or additional Works ordered under the Conditions of Contract
 - d) assistance in the calculation of progress payments
 - e) computation of the Contract Price

1.2 GENERAL

1.2.1 The Bill of Quantities shall be read in conjunction with the Conditions of Contract, Specification, Contract Drawings and all other Contract Documents relevant thereto and the cost of complying with the requirements and obligations thereof or which may be reasonably inferred therefrom shall be deemed to be included in the rates and prices set out in the Bill of Quantities.

- 1.2.2 Descriptions shall identify the work covered by the respective items, but the exact nature and extent of the work shall be ascertained from the Specification, Drawings and Conditions of Contract, as the case may be.
- 1.2.3 The order of stating dimensions in descriptions shall be in the sequence of length, width and height (or depth) unless otherwise described.
- 1.2.4 Where work is shown, described, indicated in or reasonably inferred or implied from the Specification and or Drawings but not specifically itemized in the Bill of Quantities, then the cost of such work shall be deemed to be included in the rates for the items associated with the particular work. No additional items, other than those stated in the Bill of Quantities, will be used to measure such work without the written consent of the Engineer.
- 1.2.5 Where the Contractor does not insert a rate against an item (or items) in the Bill of Quantities, the cost of carrying out the work described in the item(s) will be deemed to be included elsewhere and no measurement of the item(s) will be made.
- 1.2.6 Unit rates and prices shall be expressed in Chinese Renminbi and Japanese Yen to a maximum of two decimal places.
- 1.2.7 Throughout the Bill of Quantities the following abbreviations shall apply:

<u>Abbreviation</u>	Full Meaning
mm	millimetre
mm²	square millimetre
m	metre
m ²	square metre
m^3	cubic metre
ha	hectare
ea	each
No	number
kg	kilogramme
km	kilometre
t ·	tonne di la
ltr ·	litre to the state of the state
LS	Lump Sum
PS	Provisional Sum,
MM	Man Month
MD	Man Day
Rate	Unit Rate

- 1.2.8 The Bill of Quantities identifies and represents the Works to be carried out as part of this project. Sections of works that can not be accurately measured are noted as Lump Sum. Additionally Provisional Sums have been included, which sums shall be used in whole or in part, or not at all, or the instructions of the Engineer.
- 1.2.9 The General Principles of Measurement and Principles of Measurement for each part of the Bill of Quantities apply equally to all parts of the Bill of Quantities when relevant and are not limited to the parts in which they are contained.
- 1.2.10 Where reference is made to the "descriptions" or "as described" the term "descriptions" or "as described" shall mean the descriptions of the item(s) contained in the Bill of Quantities, the Specification or Drawings.

SECTION 2: PRELIMINARY AND GENERAL ITEMS

2.1 CONTRACTUAL ITEMS

2.1.1 General

- 2.1.1.1 For the purpose of Interim Payment Certificates, the amount entered against Contractual items in the Preliminaries and General Items Section will be certified as stated following:
 - (a) Performance Bond: the amount entered against this item will be certified in the Interim Payment Certificate following approval of the institution providing the security and receipt of the Performance Bond.
 - (b) Insurances: the amounts entered against these items will be certified in the Interim Payment Certificate following approval of the policies in accordance with the Conditions of Contract. Originals of receipts must be produced as evidence of payment.
 - (c) All other amounts entered against Preliminary and General Contractual items will be certified for payment in direct proportion to the accumulative value of certified Site construction Works.

2.2 SPECIFICATION ITEMS

2.2.1 General

- 2.2.1.1 For the purposes of Interim Payment Certificates, the amounts, entered against Specification Items in the Preliminaries and General Items Section will be certified as stated following:
 - (a) Contractor's Site Establishment on provision of the facilities and approval of the Engineer, 50% of the amount entered against this item will be certified for payment in the following Interim Payment Certificate. On completion of the Works, removal of the facilities and the making good of the area occupied thereby, all as specified and to the approval of the Engineer, 20% will be certified for payment in Final Payment Certificate. The remaining 30% will be certified for payment in equal monthly installments during the period for construction of the Works, providing that the facilities are maintained in accordance with the Contract and to the approval of the Engineer.
 - (b) Construction Plant on completion of mobilizing, erecting, testing and commissioning as specified of all plant and equipment and approval of the Engineer, 60% of the amount entered against this item will be certified for payment in the following Interim Payment Certificate. On completion of the demobilization of all plant and equipment and the making good of any area occupied thereby and approval of the Engineer, 40% of the amount will be certified for payment in the following Interim Payment Certificate.
 - (c) General Site Requirement on completion of the installations as specified and approval of the Engineer, 60% of the amount entered against this item will be certified for payment in the following Interim Payment Certificate. On completion of the Works removal of the installations and the making good of the area occupied thereby to the approval of the Engineer, 20% will be certified for payment in the next interim payment. The remaining 20% will be certified for payment in equal monthly installments during the period for construction of the Works, providing that the installations are maintained to the satisfaction of the Engineer.
 - (d) Assistance to Engineer () the quantities stated will be measured in accordance with Clause 56 of the Conditions of Contract and the calculated amounts certified.
 - (e) Site Investigation () where quantities are stated these will be measured in accordance with Clause 56 of the Conditions of Contract and the calculated amounts certified. Lump Sum amounts will be certified in direct proportion to the completion of that item.

(f) Document Submission and Other Matters - the amount entered against these items will be certified in installments in proportion to the particular items completed.

SECTION 3: DIRECT WORKS

3.1 METHOD OF MEASUREMENT

- 3.1.1 The method of measurement and computations to be used in determination of quantities of material furnished and of work performed under the Contract will be those methods generally recognized as conforming to good engineering practices in China. All work completed under the Contract will be measured by the Engineer or his authorized representatives using metric-ton unit system of measurement.
- 3.1.2 Where appropriate, quantities have been rounded off to nearest integer (<0.5 rounded down, ≥0.5 rounded up). However, quantities of items measurement in hectares, tonnes or quantities of high value items have been expressed to one place of decimals.
- 3.1.3 When the application of 3.1.2 would cause an entire item to be eliminated, then such an item is enumerated stating the size or weight as appropriate.

3.2 MEASURED WORKS

- 3.2.1 Quantities included under the Measured Works sections of the Bill of Quantities are estimated quantities based on the Scope of Works set forth in the Contract Documents and shall be subject to remeasurement in accordance with the provisions of the Contract and valued at the unit rates included therein. There shall be no basis of claim or adjustment of the unit rates and prices in he event that the quantity of Work performed for any item shown in the Bill of Quantities, as finally measured in accordance with the provisions of the Contract, is different from that shown in the Bill of Quantities.
- 3.2.2 Unless otherwise stated, all items shall be deemed fully inclusive of all that is necessary to fulfill the liabilities and obligations arising out of the contract and shall include, but not be limited to, the following
 - a) Labour, supervision and all associated costs
 - b) Materials, goods and all associated costs
 - c) Fitting, jointing and fixing materials and goods in position
 - d) Cutting to size and allowances for wastage of materials and goods
 - e) Provision of plant
 - f) Temporary works
 - g) Maintenance and protection of finished work
 - h) Establishment charges, overheads and profit

- 3.2.3 The Contract price shall be computed from the quantities of work entered in the Bill of Quantities and valued at the unit and lump sum prices tendered against the respective items in the Bill of Quantities hereto.
- 3.2.4 The Tenderer shall ensure that his tender prices are well balanced and that no section of the Bill of Quantities is heavily priced to cause lower prices in another section. The Employer reserves the right to require balancing of the Tender before acceptance.
- 3.2.5 Any difference between the cost of executing work of a similar description in different areas of the Site shall be allowed for in pricing the items concerned.
- 3.2.6 Except as otherwise provided in the Conditions of Contract, items included in the Preliminary and General items section shall not be subject to adjustment or remeasurement.
- 3.2.7 The CAAC 1-xxx numbers indicated in parenthesis within the "Description of Works "Column in the Bill of Quantities have been entered for the convenience of the Engineer in making cost estimations, and may be ignored by the Tenderer. The Tenderer shall compile all estimated prices on the basis of the Contract Documents.

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PART-I PRELIMINARY AND GENERAL ITEMS

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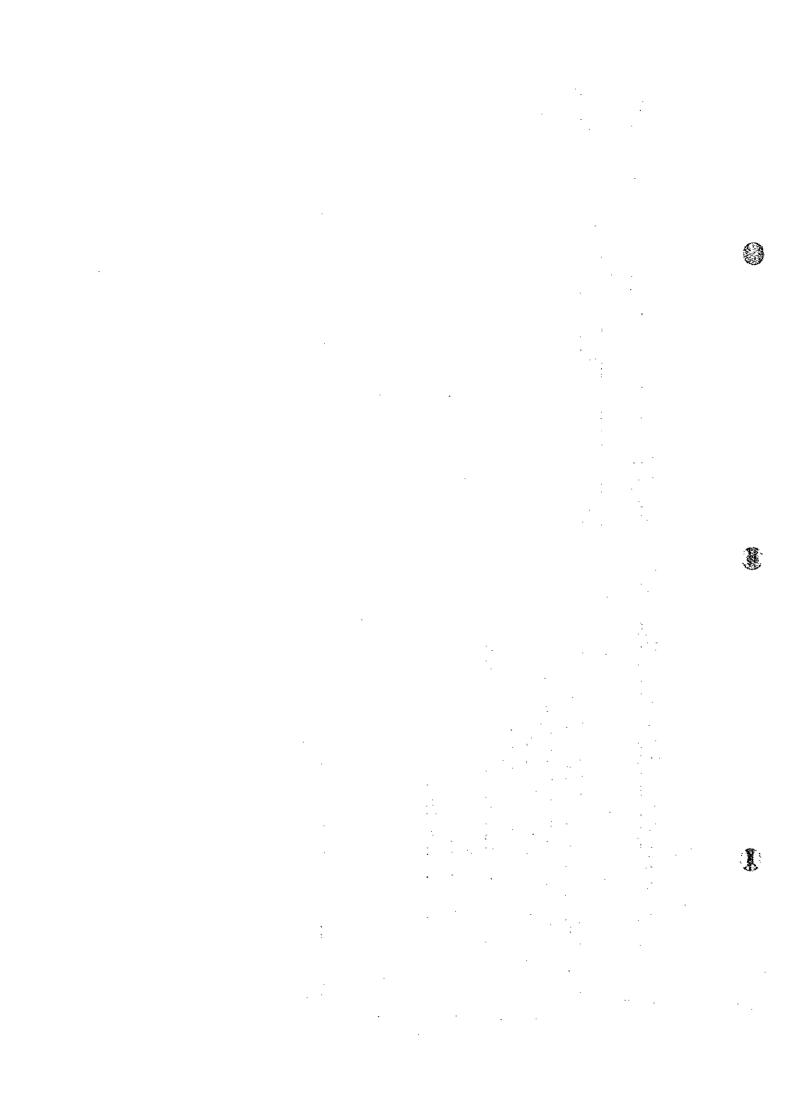
	Combined Total	China RMB									-						
	Local Cost Component (China RMB)	Amount						garana anni Afrika dh	rga, agil, gayan se in cellen ser in cel		to the part of the second seco			-			
	Local Cos (Chir	Rate													:		
ities)	Foreign Cost Component (Yen)	Amount			-							ممر پر سید			-		
tescue Facili	Foreign Cost (Y	Rate															
ng and F	Quantity				- ,→	F-1				e			perd		y-d		
ire Fighti	Unit			Unit	Package	Package				Package			Package		Package		Package
Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)	Description of Works	•	PRELIMINARY AND GENERAL ITEMS Contractual Items	Performance bond	3 Third party insurance	4 Other insurance (specify) Total of Contractual Items	Specification Items	a) Provide, maintain and remove on completion offices, yards, workshops, stores, lay-	downs areas accomodation and camps as required, including all costs of services, main-	tenance security, ground rentals and the like.	General Site Requirements	the provision, maintenance and removal of	temporary access roads	b) Provide, erect and remove on completion	notice and sign boards.	c) Provide, erect and remove on completion	temporary fencing and gates as specified.
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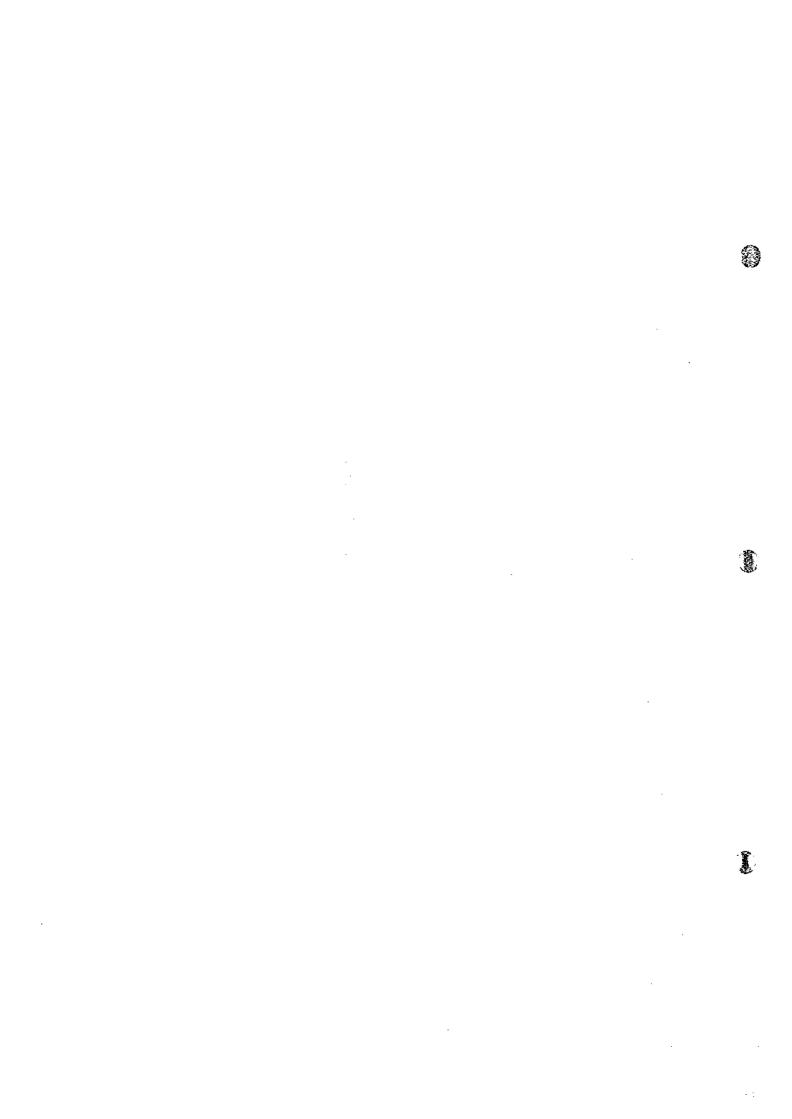
				2				
				roreign Cos	Foreign Cost Component	Local Cost	Local Cost Component	Combined
ġ Z	Description of Works	Cait	Quantity	_	(Yen)	(China	(China RMB)	Total
				Rate	Amount	Rate	Amount	China RMB
	d) Provide, erect and remove on completion temporary hoardings and gates as specified.	Package	,					
		D						
	e) Allow for all costs associated with the							
	prevention of pollution, nuisance and							
	construction noise.	Package						
	O Allow for all costs associated with Security							
	Safety and Protection.	Package	r-4					
	Sub-total							
œ==₽	3 Site Investigation							
	a) Establish the coordinates system from							
	existing fixed points and bench marks and							
	undertake a topographical survey of the areas	4						
	specified.	Package	y=-4		14- 11-11			
	; ;		•			_	**************************************	
	o) Cross sections survey rrottle leveling	Гаскаде	→					
	Sub-total							
ar atank da								
4	4 Document, Submission and Other Matters							
	a) Progress photographs as specified	Package	r=4					
	b) Operation and Maintenance manuals as				-	•		-
	specified	Package	r1	•		:	:	
	c) As-built Drawings as specified	Package	F-4				- -	
	d) Construction Standards as specified	Package	-4					
							A	

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Item				Foreign Cos	Foreign Cost Component	Local Cost Component	Component	Combined	- 7
Š	Description of Works	Unit	Quantity	<u>ک</u>	(Yen)	(China	(China RMB)	Total	
				Rate	Amount	Rate	Amount	China RMB	1
	e) Where not included in the Bill of Quantities elsewhere the Contractor shall allow for the preparation and handover of Spare Parts and Spcial Tools as required by the Engineer and or the instructions of the Engineer. Sub-total Total of Specification Items Total of Preliminary General and Items	Package							

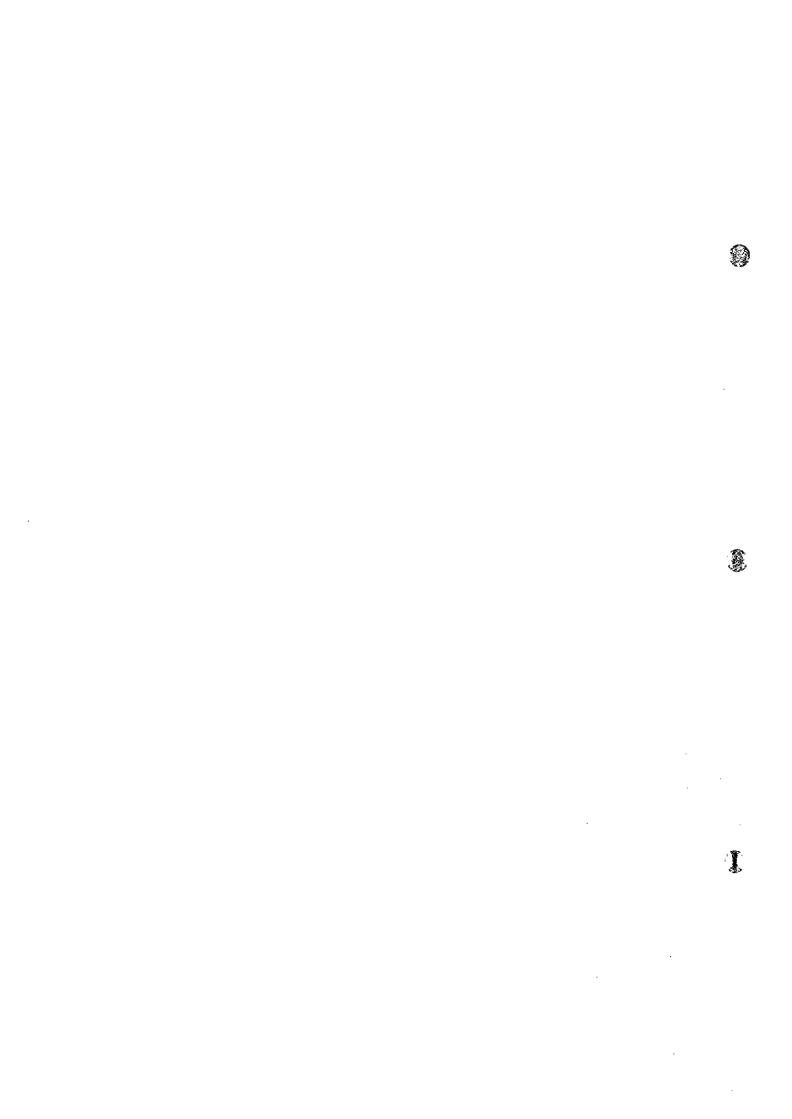


PART-2 DIRECT WORKS



PART-2-1 Main Fire Station

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				Foreign Co	Foreign Cost Component	Local Cos	Local Cost Component	Combined
ģ	Description	Unit	Quantity	()	(Yen)	(Chin	(China RMB)	China Total
:		- - - - -	:	Rate	Amount	Rate	Amount	RMB
	Foundation Works							
-	R.C.Foundation (C20 H<1.5m)	M³	526.83					
2	R.C.Foundation Beam (C20)	M³	90.67	·				
	Column & Beam Works		NC-ARMICES A					
ы	R.C.Colums (C20)	M^3	124.13					
4	R.C.Beams (C30)	M^3	274.22					
S	Columns, Higher Than 3.6m	M^3	74.48					
9	Beams, Higher Than 3.6m	M	164.53					
	Walls Works							
^	Internal Wall On Frame	M^2	3,976.00					
8	External Wall On Frame	M^2	211.38					
٥	Iron Sheet Rainwater Pipe (D45cm)	M	72.00					
10	Parapet Down spout Elbow (D100)	Set	00'8					
11	Internal Scaffolding (H>3.6m)	M^2	2,117.33					
12	External Scaffolding (H<12m)	M^2	1,750.32					
13		M_2^2	3,871.95					

Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)

Main Fire Station (Building Works)

				Forcign Co	Foreign Cost Component	Local Cos	Local Cost Component	Combined	-
Š.	Description of Works	Unit	Ouantity		(Yen)	. (Chin	(China RMB)	China Total	
				Ratc	Amount	Rate	Amount	RMB	
								No. of the second secon	-(p=-2:
	Ground, Floor Roof Works								
77	Land Grading	M^2	2,086.56						-
15	Indoor Backfill	M^2	2,086.56						Marco.
2	Bedding Mortar (Thickness=1cm)	M^2	801.84						-
17	Bedding Concrete (Thickness=1cm C15)	M_2^2	1,693.24						ettern.
-2		M_2^2	2,165.88						
19	Asphalt Damp-Proof Course On Ground (One Felb Tow Pited)	M^2	516.96						
20	Level Coat Of Fine Ballast Concrete (Thickness=3cm)	M_2	583.20						
21	Level Coat Of Cement Mortar (Thickness=2cm)	M^2	3,347.88						
23	Hardwood Strip Flowing Floor	M^2	321.72						
23	Reinforced Fine Ballast Concrete Coat	M^2	912.96						
22	Bedding Mortar (Thicknees=4cm)	M^2	1,483.56	-					
25	Per-0.5 Thickness Lively Coat Of Concrete Mortar	M_2^2	1,483.56						
26	Asphalt Damp-Proof Course On Ground (One Felb Tow Pitted)	M^2	66.24						
			The second named in column 2 is not a se						





Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)

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<u> </u>				Foreign Co	Foreign Cost Component	Local Cos	Local Cost Component	Combined
S S	Description of Works	Unit	Ouantity		(Yen)	(Chin	(China RMB)	China Total
				Ratc	Amount	Rate	Amount	RMB
27	Cement Mortar Coat Polishing And Solidifying Thicknes=2cm	M^2	199.56		:	:		:
28	Paper-Faced Gypsum Ailing Without Person	M^2	885.72					
29	Glass Cloth Damp-Proof Course On Ground Lone Cloth The Pitch	Z ²	2,121.48					
30	Preiase Concrete Color Slab With Sand Course	M^2	2,038.68					
31	Cast-In Place R.C. Beam And Shed	M^2	3,620.16					
32	Water Shed Flat Sunshading Board	M^2	45.60				-	
33	Monolithic R. C. Steps C20	M^2	60.03					
8	Wall Expansion Joint Filled Oil-Immersed Hemp	M	10.80					
35	Roof Expansion Joint Filled Oil-Immersed Hemp	M	17.10					
36	Floor Expansion Joint Covered By Steel Sheet	M	17.10					
37	Concrete Apron C15	M^2	249.00					
38	Concrete Ramp C15	M^2	424.32					
33	39 Concrete Steps C20	M^2	43.72					
9	Cast-In-Place R.C. Slab, Floor Height>3.6m, Per 3m-Increment	M^2	1,646.40	-				

Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)

Main Fire Station (Building Works)

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 				Foreign C	Foreign Cost Component	Local Co.	Local Cost Component	Combined	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
 Š	Description of Works	Cnit	Quantity		(Yen)	(Chir	(China RMB)	China Total	I - I - I - I - I - I - I - I - I - I -
				Rate	Amount	Rate	Amount	RMB	
 	Door & Window Works								
 41	Phywood-Veneered	M^2	244.41						
 42	Sliding Window Silver Aluminum Allay	M^2	161.82						Τ
 43	Silver Aluminum Allay Casement Door	M^2	76.14						Ī
4	Fixed Widow Silver Aluminum Allay	M^2	89.25						Ī
 45	Steel Wood Casement Door	M^2	217.08						Ī
									Ï
 	Finish Work								T
 46	Non Glazed Till 95*45	M^2	2,111.38						T
 47	Patlemed Tile Cement Mortar 150*150	M^2	723.24						Ī
 48	Oil Paint Emulsion Paint	M^2	809.10						Ī
 49	Five-Ply Wood Wall Faringand Dada	M^2	326.85						Ī
 50	Multi-Color Paint Wall And Columns	M^2	9,340.14	:					Î
 51	Multi-Color Plaster Ceiling Slab	M^2	2,853.84						Ĭ
									Ī
 	Acid-Resistant, Preservation, Heat Reserving Work								Ī
22	Epoxid Coal-Tar Glue Connection	M^2	82.80		,				1
 53	Cast-In-Place	M³	91.74						Ī
			- C						1





Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)

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ij	Mai	Main Fire Station (Building Works)	3	-					
					Foreign Co	Foreign Cost Component	l l	Local Cost Component	Combined
	Š	Description of Works	Unit	Quantity)	(Yen)	(Chin	(China RMB)	China Total
					Rate	Amount	Rate	Amount	RMB
		Earth Works							
اـــــــــــــــــــــــــــــــــــــ	Ŗ	Earth Works	M.	4,235.71					
<u></u>		Training Tower							
	55	Training Tower	L.S						
- 5 -									
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Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities) Main Fire Station PAVING

Item				Foreign Cost Component	Component	Local Cos	Local Cost Component	Combined
ģ Z	Description of Works	Unit	Quantity	(Yen)	ın)	(Chir	(China RMB)	Total
				Rate	Amount	Rate	Amount	China RMB
744 	EARTHWORK							
, ,	DIGSILT	CUBIC METRE	2000					
<u> </u>	FILLING WITH EARTH	CUBIC METRI	7000					
<u>,</u>	ROAD				:		-	;
ω ₁	2_1 C30 CEMENT CONCRETE 24CM	100 SQ.M.	141					:
4 1	2_2 2CM FINE STONE LEVELLING	100 SQ.M.	154					
~ <u>'</u>	2_3 ISCM SECOND COAT CRUSHED STONE	100 SQ.M.	454		:			:
~ ₁		100 SQ.M.	154					
W	GREENERY PATCHES	100 SQ.M.	09					
			-				:	4
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Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities) MAIN FIRE STATION POWER SUPPLY SYSTEM

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Itcm				Foreign Co:	Foreign Cost Component	Local Cost Component	Component	Combined
Ś	o. Description of Works		Unit Quantity		(Yen)	(China RMB)	RMB)	Total
				Rate	Amount	Rate	Amount	China RMB
	POWER DISTRIBUTION BOX	XL-51	1					
	2 LIGHTING/RECEPTACLE DISTRIBUTION BOX	PXT (R) -4	7					
	1 LIGHTING/RECEPTACLE DISTRIBUTION BOX	PXT (R) -3	۲.					
	4 (BOILING WATER POWER PANEL	XXL-54	m					
~ ·	5 SOCKET BOX XR	XRZ301-6-16	4					
	S EXHAUST FAN POWER CONTROLPANEL		_		1 0.00000000000000000000000000000000000		·	
	7 FIRE ALARM CONTROL POWER	247	-					
	3 THREE SPEED SWITCH		33					
	FIRE SOUND AND SHINE ALARM	HX100	44			~~~	Ivotas	
-7	10 MAIN FIRE STATION SECTION ENVIRONMENT LIGITING		9		-2			
	1 EMERGENCY LIGHT	HD 211	83					
F-1	2 FLUORESCENT HYC	HYG28-1 1*40W	23					
r •1	3 FLUORESCENT HY	HYG28-2 1*40W	147				····	
	4 ONE TUBE GRILLE FLUORESCENT HYG:	HYG329-1C 1*40W	18					
-4 	5 TWO TUBE GRILLE FLUORESCENT HYG:	HYG329-2C 1*40W	66	·				
	16 BLAST FLUORESCENT YB:	YB 3E-40 1*40W	4			-	e production (
,-4 	7 CIRCULAR OVERHEAD LIGHT HXL	HXD233A 1*40W	36		and an and a fine of			
	8 TUBE-SHAPE LAMP	HZD120B 1*40W	30		y		-	
- -1	19 HANGING-UP INDUSTRIAL LAMP	HGC 125-B 1*250W	50					
.∵ 	20 MULI-LAMP HXD	HXD 243-4 4*40W	p=d			20-4F 3-4R		
	21 WATER ANDDUST PROOF OVERHEAD LIGHT HXL	HXD217A 1*40W	29	18.45 (3)				
	22 ONE SWITCH ENCLOSED	250V 10A	72				· ·	
	TWO SWITCH ENCLOSED	250V 10A	99		-		New mich def	
	24 THREE SWITCH ENCLOSED	250V 10A	7				······································	
	25 DOUBLE-CONTROL SWITCH	250V 10A	9					

Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities) MAIN FIRE STATION POWER SUPPLY SYSTEM

Description of Works	licm			_	-				
100-100 100-						Foreign Co	st Component	Local Cost Component	Combined
250 1 PhASE SOCKET 250 10 A	Ž			Unit Or	antity		Yen)	(China RMB)	Total
22 IVERANSE SOCKET 250V 10A 152 23 WATER PROPE SOCKET 250V 10A 6 23 WATER PROPE SOCKET 250V 15A 5 24 WATER PROPE SOCKET 250V 15A 5 25 WATH SWITCH SOCKET 250V 15A 3 26 WATH SWITCH SOCKET 250V 15A 1 26 WATH SWITCH SOCKET 250V 15A 1 26 WATH SWITCH SOCKET 250V 15A 1 27 POWER INTAKE CABLE VV22-1KV 2** m 540 28 POWER SUPPLE CABLE VV-1KV 3**6+1** m 460 29 POWER SUPPLE CABLE VV-1KV 3**6+1** m 100 20 POWER SUPPLE CABLE VV-1KV 3**6+1** m 100 25 POWER SUPPLE CABLE VV-1KV 3**16+1**10 m 100 26 FLEXIBLE CABLE VV-1KV 3**2**1**10 m 205 26 FLEXIBLE CABLE BV-500V 4 m 205 26 CABLE						Ratc	Amount		China RMB
27 WATER PROOF SOCKET 250V 10A 28 WATER PROOF SOCKET 250V 10A 29 WITH SWITCH SOCKET 380V 5A 30 BLAST AXIAL FAN CONTROL BUTTON 380V 5A 31 POWER INTAKE CABLE VV22-1KV 2*4 m 32 POWER INTAKE CABLE VV-1KV 3*6+1*4 m 33 POWER SUPLE CABLE VV-1KV 3*6+1*4 m 34 POWER SUPLE CABLE VV-1KV 3*6+1*4 m 35 POWER SUPLE CABLE VV-1KV 3*6+1*4 m 36 FLEXIBLE CABLE RV-20V 3*6+1*4 m 37 CABLE BV-500V 4 m 38 CABLE BV-500V 10 m 40 CABLE BV-500V 10 m 41 ELECTRIC PIPE GG40 m 42 ELECTRIC PIPE GG50 m 43 ELECTRIC PIPE GG0 m 44 ELECTRIC PIPE GG0 M 45 LIGHTINING DISCHARGE WIRE GG0 M	Ä		250V 10A		152			-	
28 WATER PROOF SOCKET 250V 15A 29 WITH SWITCH SOCKET 380V 5A 30 BLAST AXIAL FAN CONTROL BUTTON 380V 5A 31 POWER INTAKE CABLE VV2Z-1KV 2*4 m 32 POWER INTAKE CABLE VV-1KV 3*6+1*4 m 33 POWER SUPPLE CABLE VV-1KV 3*6+1*4 m 34 POWER SUPPLE CABLE VV-1KV 3*25+1*16 m 35 POWER SUPPLE CABLE VV-1KV 3*25+1*16 m 36 FLEXIBLE CABLE VV-1KV 3*25+1*16 m 37 CABLE BV-500V 2.5 m 38 CABLE BV-500V 10 m 40 CABLE BV-500V 10 m 41 ELECTRIC PIPE G25 m 42 ELECTRIC PIPE G35 m 43 ELECTRIC PIPE G350 m 45 LIGHTINING DISCHARGE WIRE 8 m 46 GROUNDING ELECTRODE 50*50*5*2500 m 40*4 BARTH WIRE	71		250V 10A		٥				and and a second
29 WITH SWITCH SOCKET 250V 10A 30 BLAST AXIAL FAN CONTROL BUTTON 380V 5A 31 POWER INTAKE CABLE VV22.1KV 3*24+1*24 m 32 POWER INTAKE CABLE VV-1KV 3*6+1*4 m 33 POWER SUPPLE CABLE VV-1KV 3*6+1*4 m 34 POWER SUPPLE CABLE VV-1KV 3*25+1*16 m 35 POWER SUPPLE CABLE VV-1KV 3*25+1*16 m 36 FLEXIBLE CABLE VV-1KV 3*25+1*16 m 37 CABLE BV-500V 2.5 m 38 CABLE BV-500V 2.5 m 40 CABLE BV-500V 6 m 40 CABLE BV-500V 6 m 41 ELECTRIC PIPE G25 m 42 ELECTRIC PIPE G30 m 43 ELECTRIC PIPE G30 m 45 LIGHTNING DISCHARGE WIRE B M 46 GROUNDING ELECTRODE G50*50*50*50*50*0 m 40*4 BARTH WIRE<	~		250V 15A		'n				
30 BLAST AXIAL FAN CONTROL BUTTON 380V 5A 31 POWER INTAKE CABLE VV22-1KV 2*4 m 32 POWER INTAKE CABLE VV-1KV 3*06+1*4 m 33 POWER SUPPLE CABLE VV-1KV 3*06+1*4 m 34 POWER SUPPLE CABLE VV-1KV 3*25+1*10 m 35 POWER SUPPLE CABLE VV-1KV 3*25+1*10 m 36 FLEXIBLE CABLE RV-2V1KY 3*25+1*10 m 37 CABLE BV-500V 25 m 38 CABLE BV-500V 4 m 40 CABLE BV-500V 6 m 40 CABLE BV-500V 6 m 41 ELECTRIC PIPE G25 m 42 ELECTRIC PIPE G50 m 43 ELECTRIC PIPE G50 m 45 ELECTRIC PIPE G50 m 46 GROUNDING ELECTRODE S0*50*52500 m 40*4 m 40*4 m	۲à ===		250V 10A						
31 POWER INTAKE CABLE VV2Z-1KV 3*24+1*10 m 32 POWER INTAKE CABLE VV2Z-1KV 2*4 m 33 POWER SUPPLE CABLE VV-1KV 3*06+1*4 m 34 POWER SUPPLE CABLE VV-1KV 3*16+1*10 m 35 POWER SUPPLE CABLE VV-1KV 3*25+1*16 m 36 FLEXIBLE CABLE BV-500V 2.5 m 37 CABLE BV-500V 4 m 38 CABLE BV-500V 10 m 40 CABLE BV-500V 10 m 41 ELECTRIC PIPE G35 m 42 ELECTRIC PIPE G35 m 43 ELECTRIC PIPE G30 m 44 ELECTRIC PIPE G30 m 45 LIGHTNING DISCHARGE WIRE 8 m 46 GROUNDING ELECTRODE G30*5*2500 m 47 EARTH WIRE M M	<u>ښ</u>		380V SA						
32 POWER INTAKE CABLE VV22-1KV 2*4 m 33 POWER SUPPLE CABLE VV-1KV 3*6+1*4 m 34 POWER SUPPLE CABLE VV-1KV 3*16+1*10 m 35 POWER SUPPLE CABLE VV-1KV 3*25+1*16 m 36 FLEXIBLE CABLE RV-2*1.5 m 37 CABLE BV-500V 2.5 m 38 CABLE BV-500V 4 m 40 CABLE BV-500V 10 m 40 CABLE BV-500V 10 m 41 ELECTRIC PIPE GA25 m 42 ELECTRIC PIPE GA25 m 43 ELECTRIC PIPE GS0 m 44 ELECTRIC PIPE S m 45 LICHTINING DISCHARGE WIRE 8 m 46 GROUNDING ELECTRODE SO*50*5*2500 m 47 EARTH WIRE 40*4 m	(7)		VV22-1KV 3-240+1-120	= r	540		~~~~		ON
33 POWER SUPPLE CABLE VV-1KV 3*6+1*4 m 34 POWER SUPPLE CABLE VV-1KV 3*16+1*10 m 35 POWER SUPPLE CABLE VV-1KV 3*25+1*16 m 36 FLEXIBLE CABLE RV-2*1.5 m 37 CABLE BV-500V 2.5 m 38 CABLE BV-500V 4 m 40 CABLE BV-500V 10 m 41 ELECTRIC PIPE G25 m 42 ELECTRIC PIPE G35 m 43 ELECTRIC PIPE G35 m 45 LIGHTINING DISCHARGE WIRE 8 m 46 GROUNDING ELECTRODE 50*50*5*2500 m 47 EARTH WIRE 40*4 m	8		VV22-1KV 2*4		009				
34 POWER SUPPLE CABLE VV-1KV 3*25+1*10 m 35 POWER SUPPLE CABLE VV-1KV 3*25+1*16 m 36 FLEXIBLE CABLE RV-2*1.5 m 37 CABLE BV-500V 2.5 m 38 CABLE BV-500V 4 m 40 CABLE BV-500V 10 m 40 CABLE BV-500V 10 m 41 ELECTRIC PIPE G25 m 42 ELECTRIC PIPE G25 m 43 ELECTRIC PIPE G30 m 45 LIGHTNING DISCHARGE WIRE 8 m 46 GROUNDING ELECTRODE S0*50*5*2500 m 47 EARTH WIRE 40*4 m	<u>ښ</u>		VV-1KV 3*6+1*4	·····	460				
35 POWER SUPPLE CABLE VV-1KV 3*25+1*16 m 36 FLEXIBLE CABLE RV-2*1.5 m 37 CABLE BV-500V 2.5 m 38 CABLE BV-500V 4 m 40 CABLE BV-500V 10 m 40 CABLE BV-500V 10 m 41 ELECTRIC PIPE G25 m 42 ELECTRIC PIPE G40 m 43 ELECTRIC PIPE G40 m 44 ELECTRIC PIPE G50 m 45 LIGHTINING DISCHARGE WIRE 8 m 46 GROUNDING ELECTRODE 50*50*5*2500 m 47 EARTH WIRE M*4 m	<i>й</i>	·	VV-1KV 3*16+1*10		100				
36 FLEXIBLE CABLE m BV-500V 2.5 m 37 CABLE BV-500V 4 m 38 CABLE BV-500V 4 m 40 CABLE BV-500V 10 m 40 CABLE BV-500V 10 m 40 CABLE BV-500V 10 m 40 CABLE CABLE m 40 CABLE BV-500V 10 m 40 CABLE CABLE m 41 ELECTRIC PIPE CG25 m 42 ELECTRIC PIPE CG25 m 45 LIGHTINING DISCHARGE WIRE 8 m 46 GROUNDING ELECTRODE S0*50*5*2500 m 47 EARTH WIRE M*4 m	<u>ښ</u>		VV-1KV 3*25+1*16		190				
37 CABLE BV-500V 2.5 m 38 CABLE BV-500V 4 m 39 CABLE BV-500V 6 m 40 CABLE BV-500V 10 m 41 ELECTRIC PIPE G15 m 42 ELECTRIC PIPE G25 m 43 ELECTRIC PIPE G30 m 44 ELECTRIC PIPE G50 m 45 LIGHTINING DISCHARGE WIRE 8 m 46 GROUNDING ELECTRODE 50*50*5*2500 m 47 EARTH WIRE M*4 m			RV-2*1.5		1020				
CABLE BV-500V 4 m CABLE BV-500V 6 m CABLE BV-500V 10 m CABLE G15 m ELECTRIC PIPE G25 m ELECTRIC PIPE G40 m ELECTRIC PIPE G50 m LIGHTNING DISCHARGE WIRE 8 m GROUNDING ELECTRODE 50*50*5*2500 m EARTH WIRE 40*4 m	<u>ښ</u>	CABLE	BV-500V 2.5		000				
CABLE BV-500V 6 m CABLE BV-500V 10 m ELECTRIC PIPE G1S m ELECTRIC PIPE G40 m ELECTRIC PIPE G50 m LIGHTNING DISCHARGE WIRE 8 m GROUNDING ELECTRODE 50*50*5*2500 m EARTH WIRE M*4 m	×	CABLE	BV-500V 4		7050				
CABLE BV-500V 10 m ELECTRIC PIPE G15 m ELECTRIC PIPE G40 m ELECTRIC PIPE G50 m ELECTRIC PIPE G50 m LIGHTNING DISCHARGE WIRE 8 m GROUNDING ELECTRODE 50*50*5*2500 m EARTH WIRE 40*4 m			BV-500V 6		225				A CONTRACTOR OF THE PARTY OF TH
ELECTRIC PIPE G15 m ELECTRIC PIPE G25 m ELECTRIC PIPE G50 m ELECTRIC PIPE G50 m LIGHTNING DISCHARGE WIRE 8 m GROUNDING ELECTRODE 50*50*5*2500 m EARTH WIRE 40*4 m	~~~	-	BV-500V 10	-110-44	450				
ELECTRIC PIPE G25 m ELECTRIC PIPE G40 m ELECTRIC PIPE G50 m LIGHTINING DISCHARGE WIRE 8 m GROUNDING ELECTRODE 50*50*5*2500 m EARTH WIRE 40*4 m	4		GIS		7370				
ELECTRIC PIPE G40 m ELECTRIC PIPE G50 m LIGHTNING DISCHARGE WIRE 8 m GROUNDING ELECTRODE 50*50*5*2500 m EARTH WIRE 40*4 m	4		G25		255				
ELECTRIC PIPE LIGHTNING DISCHARGE WIRE GROUNDING ELECTRODE EARTH WIRE 650*5*2500 m 40*4 m		ELECTRIC PIPE	G40		235				
LIGHTNING DISCHARGE WIRE GROUNDING ELECTRODE EARTH WIRE 40*4 m	4		020	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	265				***
GROUNDING ELECTRODE 50*50*5*2500 m EARTH WIRE 40*4 m			∞		320				
EARTH WIRE	4		50*50*5*2500	·	ผ			-	
	4		40*4		200	-	-		-

Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)
Technological Design of Telephone Broadcast And TV Wiring For Main Fire Station

Itcm				Foreign Cost	Foreign Cost Component	Local Cost	Local Cost Component	Combined
ç Z	Description of Works	Chit	Quantity	(X)	(Ycn)	(China RMB)	RMB)	Total
				Rate	Amount	Rate	Amount	China RMB
	Jumper Cabinet (XRH01-7)	Set	1					
~	Jumper Cabinet (XRH01-2)	Set	~ -4			erito —		
(13	TV Cabinet	Set	7					
4	Outlet Connection Unit	Set	18					
Ŋ	Two Branch of TV	Set	17					
9	TV Socket	Set	34					
7	Broadcast Socket	Sct	22					
∞	Loud-speaker (5 W)	Set	14					
5	Loud-speaker (10 W)	Sct	∞					
2	Telephone Line	Z	909				3.4.4.4.	
=	Coaxial Cable	Σ	200					
71	Broadcawt Cable	Σ	320					
33	Steel Pipe (G70)	×	15					
7	~	Σ	35					
15	~	Z	25					
16	Steel Pipe (G15)	Z	30					
<u></u>	Communication Cable		·——					
18	HYV2 (5 x 2 x 0.5)	Σ	4					
	Communication Cable			-				
13	HPVV (5 x 2 x 0.5)	Σ	9					
	Duty Dest	Set	, —1	-				
20	Power Amplifier	Set	F-4					
51	VIIF Rx - Tx	Set	-	COLUMN TO SOME				
22	UPS (1000W)	Set	~		,			
23	TV Antenna	Sct	* ~	(Dece-re-				
24	Red brick	Piece	800					

Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities) MAIN FIRE STATION AC

Rate Amount C	Item					Foreign Cost	Foreign Cost Component	Local Cos	Local Cost Component	Combined
Pacilities Specifications Pacilities Specifications Pacilities Specifications Amount Rate Amount	<u>z</u>		100 0 0 0 0	Unit	Quantity	کخ	, (ii	(Chin	a RME)	Total
FAN-COIL UNIT Q.F-LP(H) 300 4 FAN-COIL UNIT SHF-LP(H) 400 31 Q.=4470W N=68W N=68W N=68W N=68W N=67W N=167W N=167W N=167W AUTOMATIC EXHAUST VALUE ZP-1 STOP VALUE J417-16 DNS0 J417-16 DNS0 M 200 DNS0 M 100 DNS0 M 100 DNS0 M 100 DNS2 M 100		Facilities	Specifications					Rate	Amount	China RMB
Q _L =3320W N=68W SHF-LP(H) 400 Q _L =4470W N=86W N=86W N=167W N=167W N=167W N=167W N=128W AUTOMATIC EXHAUST VALUE ZP-1 STOP VALUE 141T-16 DNS0 141T-1	<u>~</u>	FAN-COIL UNIT	SHF-LP(H) 300		4					
N=68# N=68#			Q_=3320W							
FAN-COIL UNIT QL=4470W N=86\(\text{N}\) FAN-COIL UNIT SHF-LP(H) 800 QL=6440W N=167\(\text{N}\) N=167\(\text{N}\) N=228\(\text{N}\) AUTOMATIC EXHAUST VALUE ZP-1 STOP VALUE J41T-16 DN30 J41T-16 DN25 J41T-16 DN25 J41T-16 DN15 GALVARNIZED STEEL PIPE DN70 DN50 m DN40 m DN40 m DN40 m DN52		enter .	N=68W		, # Ø= Ø ₁ , d					
Q ₁ =4470W N=86W SHF-LP(H) 800 Q ₁ =6440W N=167W N=167W N=228W AUTOMATIC EXHAUST VALUE ZP-1 STOP VALUE J41T-16 DNS0 J41T-16 DN20 J41T-16 DN25 J41T-16 DN20 J41T-16 DN25 J41T-16 DN20 J41T-16 DN20 J41T-16 DN20 J41T-16 DN20 J41T-16 DN30 DN70 m DN50 m DN50 m DN50 m DN50 m DN50 m DN50 m		FAN-COIL UNIT	SHF-LP(H) 400		31					
N=86W			Q.=4470W					New Market Strange		
FAN-COIL UNIT QL=6440W N=167W N=167W N=167W SHF-LP(H) 1200 QL=9270W N=228W AUTOMATIC EXHAUST VALUE ZP-1 STOP VALUE J41T-16 DN30 J41T-16 DN20 J41T-16 DN25 J41T-16 DN25 J41T-16 DN15 J41T-16 DN15 J41T-16 DN15 J41T-16 DN15 J41T-16 DN15 DN170 m DN30 m DN30 m DN40 m DN40 m DN40 m DN40 m		-	N=86W							The proper
Q _L =6440W N=167W N=167W SHF-LP(H) 1200 Q _L =9270W N=228W AUTOMATIC EXHAUST VALUE ZP-1 STOP VALUE J41T-16 DNS0 J41T-16 DN20 J41T-16 DN25 J41T-16 DN25 J41T-16 DN15 GALVARNIZED STEEL PIPE DN70 m		FAN-COIL UNIT	SHF-LP(H) 800		prod		Clesipin, S			
N=167W			Q_=6440W							
FAN-COIL UNIT Q ₁ =9270W N=228W N=228W AUTOMATIC EXHAUST VALUE JA1T-16 DN80 JA1T-16 DN70 JA1T-16 DN20 JA1T-16 DN25 JA1T-16 DN25 JA1T-16 DN25 JA1T-16 DN15 GALVARNIZED STEEL PIPE DN70 m DN70 m DN50	->		N=167W							
Q _L =9270W N=228W AUTOMATIC EXHAUST VALUE ZP-1 STOP VALUE J41T-16 DN80 J41T-16 DN20 J41T-16 DN25 J41T-16 DN25 J41T-16 DN15 GALVARNIZED STEEL PIPE DN70 m DN70 m DN50 m		FAN-COIL UNIT	SHF-LP(H) 1200		4		-			
N=228W	~		O,=9270W							
AUTOMATIC EXHAUST VALUE ZP-1 STOP VALUE J41T-16 DN80 J41T-16 DN50 J41T-16 DN25 J41T-16 DN25 J41T-16 DN25 J41T-16 DN15 DN70 m DN70 m DN50 m DN5		-	N=228W					hat de		
STOP VALUE J417-16 DN80 J417-16 DN70 J417-16 DN40 J417-16 DN25 J417-16 DN25 J417-16 DN15 DN70 DN70 DN70 DN70 DN50 m	~ ~		3ZP-1		10					
J417-16 DN70 J417-16 DN50 J417-16 DN20 J417-16 DN25 J417-16 DN20 J417-16 DN15 DN70 m DN70 m DN50 m DN40 m DN32 m	رب	STOP VALUE	J41T-16 DN80		~					
J41T-16 DN50 J41T-16 DN40 J41T-16 DN25 J41T-16 DN20 J41T-16 DN15 DN70 DN70 DN50 DN	20000		J41T-16 DN70		m					
J41T-16 DN40 J41T-16 DN25 J41T-16 DN20 J41T-16 DN15 DN30 m DN50 m			J41T-16 DN50		∞					2000
J41T-16 DN25 J41T-16 DN20 J41T-16 DN15 J41T-16 DN15 DN30 m DN50 m			J41T-16 DN40	- 3/22-11	+<			ar ann a		
J41T-16 DN20 J41T-16 DN15 GALVARNIZED STEEL PIPE DN30 m DN70 m DN50 m DN40 m DN40 m			J41T-16 DN25		8					
GALVARNIZED STEEL PIPE DN80 m DN70 m DN50 m DN50 m DN50 m DN50 m DN40 m DN32 m			J41T-16 DN20		34					
GALVARNIZED STEEL PIPE DN80 m DN70 m DN50 m DN40 m DN32 m	·		J41T-16 DN15		4					
8888	4	GALVARNIZED STEEL PIPE	DN80	E	30	- , 1 1 - 2		o 2. p. d 3d		
888			DN70	a	80		-			
E E			DNSO	B	230				-	Parents
m			DN40	E	8		ore c.a			
			DN32	Ħ	08					- Acceded

Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)

Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)

Itcm					Forcign Cos	Foreign Cost Component	Local Cost	Local Cost Component	Combined
Š	Descr		Čaj:	Ouantity	ľ	(Ycn)	(China	(China RMB)	Total
	Facilities	Specifications			Rate	Amount	Ratc	Amount	China RMB
~~	GALVARNIZED STEEL PIPE	DNS()	E	30					
		DN32	E	110					
		DN25	E	130					
	-	DN20	E	130					
		DNIS	E	250				T Security	
4	HEAT RADIATOR	FOUR CYLINDER	SET	360					
		(813) TYPE							
ന	STOP VALUE	J41T-16 DNS0	SET	2				2-3-	
		J41T-16 DN32	SET	4					
		J41T-16 DN15	SET	42				WARE BY	
ឋ	AUTOMATIC EXHAUST	ZP-1	SET	4					A completely
	VALUE								
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Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)

MAIN FIRE STATION EXHAUST

Itcm					Foreign Cost	Foreign Cost Component	Local Cost	Local Cost Component	Combined
Š	Description of Works	-	Cnit	Quantity	(Ycn)	n)	(China RMB)	RMB)	Total
		**************************************			Ratc	Amount	Ratc	Amount	China RMB
-	LOW-NOISE DIAGONAL	SWF7#	SET	2					
	FLOW FAN	L=15334m³/h							
		II=537Pa							
-		N=4KW							
		U=380V							
7	EXPLOSION-PROOF	BDZ-12 3C#	SET						
	LOW-NOISE AXIAL FAN	L=1600m ³ /h							
		N=0.06KW			- Se (Se				
		U=38()V							
در	EXHAUST FAN	L=1200m³/h	SET	4	-				
-		N=50W							
		U=220V							
4	FIRE CONTROL VALVE	1000X630	SET	*	-				
Ÿ	ALUMINUM ALLOY SINGLE- 400X400	400X400	SET	22					
	LAYER LOUVER VENT								
9	MICRO-POROUS PLATE	1000X630	SET	И					
	SILENCER	L=2000mm/						-	
<u></u>	GALVARNIZED STEEL PLATH)=1.0mm)=1.0mm	m ²	310					
∞	UMBRELLA-TYPE HOOD	12#	SET	7					COLUMN TO LANGE
						-			
					7				
		-					ner 2 - Q -		
							****	ng company and the	
								6 1 -3-3-0	
		1							

Shanghai Pudong International Airport Project (fire Fighting and Rescue Facilities)

Indc	Indoor Water Supply And Sewage For Main	ge For Main Fire Station	ation						
Itcm No.	Description of Works		Cnit	Quantity	Foreign Cost Component (Yen)	n Cost n (Yen)	Local Co (Chi	Local Cost Component (China RMB)	Combined Total China RMB
	Item	Model/Size	·		Rate	Amount	Ratc	Amount	
	Submersible Pump	AS10-2W/CB	p.c.						
4	Fire Hydrant	SG28/65-6	sct	9					
m	Gas Hot Water Boiler	Gas Input 200kJ/hr	sct	m				· ————————————————————————————————————	
4	Magnetic scale inhibitor	DN40	p.c.	~ -4				· ••••	
Ŋ	Full-Automatic Electrical Boiling Water Heater	N<10 kWatt.	sct	m				o'do r—axx	
œ	Full-Automatic Electrical Water Heater	N<3 kWatt.	sct	4					
/	Butterfly Valve	DN80	p.c.	7					
∞	Globe	DNIS	p.c.	F7					
2/	Globe	DN20		9			~~~		
2	Globe	DN25	p.c.	6				~~~~~	
Ħ	Globe	DN32	.c.	00				-	
12	Globe	DN40		m				-	
13	Check Valve	DN40	p.c.	<					
7	Ball Valve	DN32	Öd	9			·	- ·	
15	Automatic Gas Discharge Valve	DN15	p.c.	Н	_			a -Toblesco	-
16	Water Tap	DN15	j d	77			,	·	
17	Water Tap	DN20	p.c.	9	-		e Thirt and the Colombia		

Shanghai Pudong International Airport Project (fire Fighting and Rescue Facilities)

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Indo	Indoor Water Supply And Sewage For Main	e For Main Fire Station	ation))		;			·
Item No.	Description of Works		Cnit	Quantity	Foreign Cost Component (Yen)	Cost t (Yen)	Local Cos (Chir	Local Cost Component (China RMB)	Combined Total China RMB
	Item	Model/Size			Rate	Amount	Rate	Amount	
18	Shower	DNIS	set	10					
19	Metal Flexible Pipe	DN80	р.с.	7					
2	Urinal	-	set	hand hand					
21	Closet		set	17			~ 		
22	Basin		Set	17				0.844/4.274	
ឧ	Galvanized Steel Pipe	DN15	E	72			*******************************		
24	Galvanized Steel Pipe	DN20	E	6				YOMOGRA	
25	Galvanized Steel Pipe	DN25	E	65				m# 0.2400	
56	Galvanized Steel Pipe	DN32	ε	95					
27	Galvanized Steel Pipe	DN40	E	33			PLANT SERVICE	na acandodo	
28	Galvanized Steel Pipe	DNS0	E	61					
29	Galvanized Steel Pipe	DN65	E	42				nce man-shak	
30	Galvanized Steel Pipe	DN80	E	103					
33	Cast Iron Drainage Pipe	DNS0	E	135		· · · · · · · · · · · · · · · · · · ·		nc. ca suur ^a a	
32	Cast Iron Drainage Pipe	DN75	3	52				Muse householder	
33	Cast Iron Drainage Pipe	DN100	8	140					
34	Cast Iron Drainage Pipe	DN150	E	5					

Shanghai Pudong International Airport Project (fire Fighting and Rescue Facilities)

Indoor Water Supply And Sewage For Main Fire Station

ent Combined Total China RMB				m, industry)	And Applications	- 100 pts		ar san A sangar,	Name day and a		n gyzunce s		Est. and has released are not the	Owner de articular de la constantia dell		The Common terror and
Local Cost Component (China RMB)	Amount		naga sa	~~~	nano-un opinio			- Julion al C	and the second s	······································		Trial, design regular consideration and	Who to American a St. and a		Notes and the second	
	Rate											OF MINIS A PROPERTY OF A PLANT OF THE PARTY	ng nggar <u>na</u> ga sayang ang an			
Foreign Cost Component (Yen)	Amount		, pag-2-page-4						~~~			CLETTE AND THE STRUCTURE OF THE AND THE		-	- -	
	Rate															
Quantity		188		pard	7	8	4	7	7	4	4	20	-			
		p.c.	D.C.	p.c.	p.c.	p.c	p.c.	p.c.	p.c.	D.C.		ъ.с.				· · · · · · · · · · · · · · · · · · ·
Description of Works	Model/Size	DNSO	DN100	DNI50	DNS0	DN75	DN100	DN75	DN100	DN75	DN100	MF4				
	Item	Round cast-iron Floor Drain	Round cast-iron Floor Drain	Round cast-iron Floor Drain	Cleanest	Cleanout	Cleanout	Cast-iron Vent Cowl	Cast-iron Vent Cowl	Checkhole	Checkhole	Portable Phosphate Power Extinguisher				
Item No.		35	36	37	88	39	40	4	42	43	44	45				,

