

**PART-2-2 First Aid Garage**



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

First Aid Garage (Building Works)

No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined China Total RMB
				Rate	Amount	Rate	Amount	
<b>FOUNDATION WORKS</b>								
1	Brick Foundation	M <sup>3</sup>	46.56					
2	R.C. Foundation	M <sup>3</sup>	44.42					
<b>R.C. Works</b>								
3	R.C. Tie Column	M <sup>3</sup>	9.38					
4	R.C.Beams (C30)	M <sup>3</sup>	5.70					
5	Columns, Higher Than 3.6m	M <sup>3</sup>	9.38					
6	Beams, Higher Than 3.6m	M <sup>3</sup>	5.70					
<b>Walls Works</b>								
7	Standard Brick Wall	M <sup>2</sup>	376.11					
8	Standard Brick Partition	M <sup>2</sup>	156.51					
9	Brick In Wall ( Thickness=120cm)	M	47.73					
10	Toilet Partition		1.00					
11	Iron Sheet Rainwater Pipe (D45cm)	M <sup>2</sup>	27.00					
12	Parapet Downspout Elbow (D100)	SET	6.00					
13	External Scaffolding ( H<12m)	M <sup>2</sup>	514.80					

**Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)**  
**First Aid Garage (Building Works)**

No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined China Total RMB
				Rate	Amount	Rate	Amount	
14	Full Scaffolding (3.61<H<5.80m)	M <sup>2</sup>	323.43					
	<b>Ground, Floor Roof Works</b>							
15	Land Grading	M <sup>2</sup>	323.43					
16	Indoor Backfill	M <sup>2</sup>	323.43					
17	Concrete Course (H=1cm) C10	M <sup>2</sup>	16.25					
18	Bedding Mortar (Thickness=15mm)	M <sup>2</sup>	1,874.88					
19	Concrete Ground (Thickness=40mm)	M <sup>2</sup>	234.99					
20	Concrete Ground (Thickness=11mm)	M <sup>2</sup>	234.99					
21	Concrete Course (H=60mm)	M <sup>3</sup>	445.14					
22	Cement Mortar Ground	M <sup>2</sup>	55.26					
23	Ement Mortar Course Bonding Tile	M <sup>2</sup>	22.23					
24	Felt Water-Proof Course	M <sup>2</sup>	3.30					
25	Asphalt Surface Course	M <sup>2</sup>	3.30					
26	Level Coat Of Fine Ballast Concrete (Thickness=3cm)	M <sup>2</sup>	3.30					
27	Level Coat Of Fine Ballast Concrete (Thickness=3cm)	M <sup>2</sup>	3.30					

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

First Aid Garage (Building Works)

No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined China Total RMB
				Rate	Amount	Rate	Amount	
28	Level Coat Of Cement Mortar (Thickness=2cm)	M <sup>2</sup>	312.48					
29	Polyurethane Water-Proof Course	M <sup>2</sup>	312.48					
30	Elevated Roof Slab		313.48					
31	Cast-In Place R.C. Beam And Shed		314.48					
32	Cast-In Place R.C. Beam And Shed	M <sup>2</sup>	315.48					
33	Cast-In-Place R.C. Slab, Floor Height>3.6m, Per 3m-Increment	M <sup>2</sup>	316.48					
34	Water Shed Flat Sunshading Board	M <sup>2</sup>	34.56					
35	Concrete Apron C15	M <sup>2</sup>	51.48					
36	Concrete Ramp C15	M <sup>2</sup>	90.47					
37	Concrete Steps C20	M <sup>2</sup>	7.56					
	<b>Door &amp; Window Works</b>							
38	Sliding Window Silver Aluminum Alloy	M <sup>2</sup>	41.49					
39	Soundproof Door	M <sup>2</sup>	2.10					
40	Steel Wood Casement Door	M <sup>2</sup>	73.20					
41	Phywood-Veneered	M <sup>2</sup>	25.21					

**Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)  
First Aid Garage (Building Works)**

No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined China Total RMB
				Rate	Amount	Rate	Amount	
	<b>Finish Work</b>							
42	Non Glazed Till 95*45	M <sup>2</sup>	22.60					
43	Ceramic Tile Facing In Wall	M <sup>2</sup>	36.98					
44	Multi-Color Paint Wall And Columns	M <sup>2</sup>	469.57					
45	Multicolored Ceiling	M <sup>2</sup>	312.48					
46	Oil Painl Emulsion Paint	M <sup>2</sup>	222.96					
47	Wood Door Oil Paint	M <sup>2</sup>	100.51					
	<b>Acid-Resistant, Preservation, Heat Reserving Work</b>							
48	Aerocrite Leveling Course	M <sup>3</sup>	15.62					
	<b>Earth Works</b>							
49	Earth Works	M <sup>3</sup>	391.00					
	<b>Car Washing Stand</b>							
50	Car Washing Stand	SET	1.00					

**Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)**  
**FIRST AID GARAGE POWER SUPPLY SYSTEM**

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined Total China RMB
				Rate	Amount	Rate	Amount	
1	HEAT EXCHANGE STATION CONTROL BOX		1					
2	LIGHTING/RECEPTACLE DISTRIBUTION BOX		1					
3	EMERGENCY LIGHT		6					
4	HANGING-UP INDUSTRIAL LAMP		25					
5	FLUORESCENT		4					
6	WATER ANDDUST PROOF OVERHEAD LIGHT		1					
7	CIRCULAR OVERHEAD LIGHT		2					
8	WATER PROOF SOCKET		10					
9	1 PHASE SOCKET		2					
10	ONE SWITCH ENCLOSED		12					
11	TWO SWITCH ENCLOSED		1					
12	POWER SUPPLY CABLE	m	49					
13	POWER SUPPLY CABLE	m	35					
14	POWER SUPPLY CABLE	m	61					
15	CABLE	m	750					
16	CABLE	m	250					
17	ELECTRIC PIPE	m	10					
18	ELECTRIC PIPE	m	80					
19	ELECTRIC PIPE	m	320					

Shanghai Pudong International Airport Project ( Fire Fighting and Rescue Facilities)  
 Technological Design of Telephone For First Aid Garage

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined Total China RMB
				Rate	Amount	Rate	Amount	
1	Jumper Cabinet (XR101-1)	Set	1					
2	Outlet Connection Unit	Set	2					
3	Telephone Line	M	3					
4	Steel Pipe ( G50 )	M	16					
5	Steel Pipe ( G15 )	M	5					
6	Communication Cable	M	16					



**Shanghai Pudong International Airport Project ( Fire Fighting and Rescue Facilities )  
Indoor Water Supply And Sewage For first Aid Garage**

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component ( Yen )		Local Cost Component ( China RMB )		Combined Total China RMB
				Rate	Amount	Rate	Amount	
1	Galvanized steel pipe	M	10					
2	Galvanized steel pipe	M	35					
3	Galvanized steel pipe	M	15					
4	Galvanized steel pipe	M	10					
5	Galvanized steel pipe	M	15					
6	Galvanized steel pipe	M	10					
7	Drainage cast iron pipe	M	15					
8	Drainage cast iron pipe	M	10					
9	Tap	Piece	2					
10	Stop valve	Piece	1					
11	Stop valve	Piece	1					
12	Stop valve	Piece	1					
13	Portable dry-powder extinguisher	Piece	4					
14	Fire hydrant(90 single outlet)	Piece	4					



**PART-2-3 Sub Fire Station**



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

Sub Fire Station (Building Works)

No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined China Total RMB
				Rate	Amount	Rate	Amount	
<b>Foundation Works</b>								
1	Girder Strip Base C20 (H<1.5m)	M <sup>3</sup>	209.87					
<b>Column &amp; Beam Works</b>								
2	R.C.Columns (C20) (H<1.8m)	M <sup>3</sup>	46.08					
3	R.C.Beams (C30)	M <sup>3</sup>	105.67					
4	Columns, Higher Than 3.6m , Add 3.0m	M <sup>3</sup>	27.65					
5	Beams, Higher Than 3.6m, Add 3.0m	M <sup>3</sup>	63.40					
<b>Walls Works</b>								
6	Standard Brick Wall	M <sup>2</sup>	718.63					
7	Standard Brick Partition	M <sup>2</sup>	809.92					
8	Iron Sheet Rainwater Pipe (D45cm)	M	46.80					
9	Parapet Downspout Elbow (D100)	Set	6.00					
10	Internal Scaffolding ( H>3.6m)	M <sup>2</sup>	565.95					
11	External Scaffolding ( H<12m)	M <sup>2</sup>	874.60					
12	Full Scaffolding (3.61<H<5.80m)	M <sup>2</sup>	1,142.33					

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

Sub Fire Station (Building Works)

No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined China Total RMB
				Rate	Amount	Rate	Amount	
	<b>Slab, Ground, Proofworks</b>							
13	Land Grading	M <sup>2</sup>	665.28					
14	Indoor Backfill	M <sup>2</sup>	665.28					
15	Bedding Mortar (Thickness=1cm)	M <sup>2</sup>	164.07					
16	Bedding Concrete (Thickness=1cm C15)	M <sup>2</sup>	543.78					
17	Ement Mortar Course Bonding Tile	M <sup>2</sup>	556.86					
18	Asphalt Damp-Proof Course On Ground (One Felb Tow Pited)	M <sup>2</sup>	85.50					
19	Level Coat Of Fine Ballast Concrete (Thickness=3cm)	M <sup>2</sup>	99.99					
20	Concrete Course (H=1cm) C10	M <sup>2</sup>	43.62					
21	Level Coat Of Cement Mortar (Thickness=2cm)	M <sup>2</sup>	1,086.78					
22	Hardwood Strip Flowing Floor	M <sup>2</sup>	64.20					
23	Reinforced Fine Ballast Concrete Coat	M <sup>2</sup>	393.21					
24	Bedding Mortar (Thickness=4cm)	M <sup>2</sup>	392.79					
25	Per-0.5 Thickness Leveled Coat Of Concrete Mortar	M <sup>2</sup>	392.79					
26	Paper-Faced Gypsum Ailing Without Person	M <sup>2</sup>	221.97					
27	Glass Cloth Damp-Proof Course On Ground Lone Cloth The Pitch	M <sup>2</sup>	643.08					

**Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)**  
**Sub Fire Station (Building Works)**

No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined China Total RMB
				Rate	Amount	Rate	Amount	
28	Preiase Concrete Color Spab With Sand Course	M <sup>2</sup>	614.88					
29	Cast-In Place Reinforced Concrete Bean And Shed	M <sup>2</sup>	1,075.86					
30	Water Shed Flat Sunshading Board	M <sup>2</sup>	7.95					
31	Leveling Coat Of Fine Ballast Concrete Thickness=30cm	M <sup>2</sup>	146.88					
32	Steel Tube Handrail Along The Wall	M	20.70					
33	Monolithic R.C.. Step C20	M <sup>2</sup>	41.07					
34	Concrete Apron C15	M <sup>2</sup>	65.88					
35	Concrete Ramp C15	M <sup>2</sup>	122.40					
36	Concrete Steps C20	M <sup>2</sup>	12.60					
37	Cast-In-Site Slab (H<3.6m+3.0m)	M <sup>2</sup>	645.52					
	<b>Door &amp; Window Works</b>							
38	Phywood-Veneered	M <sup>2</sup>	84.61					
39	Sliding Window Silver Aluminum Alloy	M <sup>2</sup>	61.82					
40	Silver Aluminum Alloy Casement Door	M <sup>2</sup>	9.72					
41	Steel Wood Casement Door	M <sup>2</sup>	70.74					

Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)  
 Sub Fire Station (Building Works)

No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined China Total RMB
				Rate	Amount	Rate	Amount	
	<b>Finish Works</b>							
42	Non Glazed Till 95*45	M <sup>2</sup>	768.64					
43	Pattemed Tik Cement Mortar 150*150	M <sup>2</sup>	405.54					
44	Oil Paint Emulsion Paint	M <sup>2</sup>	16.81					
45	Five-Ply Wood Wall Faringand Dado	M <sup>2</sup>	7.85					
46	Multi-Color Paint Wall And Columns	M <sup>2</sup>	1,102.00					
47	Multi-Color Plaster Ceiling Slab	M <sup>2</sup>	856.59					
	<b>Acid-Resistant , Preservation, Heat Reserving Works</b>							
48	Epoxid Coal-Tar Glue Connection	M <sup>2</sup>	28.20					
	<b>Earth Works</b>							
49	Earth Works	M <sup>3</sup>	850.00					



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

Sub Fire Station PAVING

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined Total China RMB
				Rate	Amount	Rate	Amount	
1	ROAD							
1_1	C30 CEMENT CONCRETE 22CM	100 SQ.M.	19					
1_2	2CM FINE STONE LEVELLING	100 SQ.M.	20.9					
1_3	15CM SECOND COAT CRUSHED STONE	100 SQ.M.	20.9					
1_4	15CM SECOND COAT CRUSHED STONE	100 SQ.M.	20.9					
2	GREENERY PATCHES	100 SQ.M.	15					

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

SUB FIRE STATION POWER SUPPLY SYSTEM

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined Total China RMB
				Rate	Amount	Rate	Amount	
1	POWER DISTRIBUTION BOX		1					
2	LIGHTING/RECEPTACLE DISTRIBUTION BOX		3					
3	FIRE ALARM CONTROL POWER	XL-51 PXT (R)-4 24V	1					
4	EXHAUST FAN POWER CONTROL PANEL		1					
5	FIRE SOUND AND SHINE ALARM	HX100	15					
6	EMERGENCY LIGHT	HJD 211	19					
7	HANGING-UP INDUSTRIAL LAMP	HGC 125-8 1*250W	15					
8	ONE TUBE GRILLE FLUORESCENT	HYG329-1C 1*40W	19					
9	TWO TUBE GRILLE FLUORESCENT	HYG329-2C 1*40W	50					
10	BLAST FLUORESCENT	YB 3E-40 1*40W	1					
11	WATER AND DUST PROOF OVERHEAD LIGHT	HXD217A 1*40W	10					
12	CIRCULAR OVERHEAD LIGHT	HXD233A 1*40W	14					
13	WALL FITTING	HBD 361 1*60W	1					
14	MAIN FIRE STATION SECTION ENVIRONMENT LIGHTING	HJ879C 4*200W	4					
15	1 PHASE SOCKET	250V 10A	56					
16	WATER PROOF SOCKET	250V 15A	4					
17	3 PHASE SOCKET	380V 15A	6					
18	ONE SWITCH ENCLOSED	250V 10A	33					
19	TWO SWITCH ENCLOSED	250V 10A	14					
20	THREE SWITCH ENCLOSED	250V 10A	2					
21	DOUBLE-CONTROL SWITCH	250V 10A	4					
22	BLAST SWITCH	250V 10A	1					
23	BLAST AXIAL FAN CONTROL BUTTON	380V 5A	1					
24	POWER INTAKE CABLE	VV22-1KV 3*70+1*35	80	m				
25	POWER INTAKE CABLE	VV22-1KV 2*4	260	m				

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

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined Total China RMB
				Rate	Amount	Rate	Amount	
26	POWER SUPPLE CABLE	m	5					
27	POWER SUPPLE CABLE	m	20					
28	POWER SUPPLE CABLE	m	25					
29	POWER SUPPLE CABLE	m	30					
30	CABLE	m	250					
31	CABLE	m	90					
32	CABLE	m	180					
33	CABLE	m	1160					
34	CABLE	m	2500					
35	FLEXIBLE CABLE	m	140					
36	ELECTRIC PIPE	m	50					
37	ELECTRIC PIPE	m	70					
38	ELECTRIC PIPE	m	30					
39	ELECTRIC PIPE	m	80					
40	ELECTRIC PIPE	m	1540					

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

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined Total China RMB
				Rate	Amount	Rate	Amount	
1	Jumper Cabinet (XR101-7)	Set	1					
2	Jumper Cabinet (XR101-2)	Set	1					
3	TV Cabinet	Set	1					
4	Outlet Connection Unit	Set	10					
5	Two Branch of TV	Set	5					
6	TV Socket	Set	10					
7	Broadcast Socket	Set	9					
8	Loud-speaker ( 5 W )	Set	6					
9	Loud-speaker ( 10 W )	Set	3					
10	Telephone Line	M	170					
11	Coaxial Cable	M	60					
12	Broadcast Cable	M	120					
13	Steel Pipe ( G50 )	Kg	15					
14	Steel Pipe ( G25 )	Kg	10					
15	Steel Pipe ( G15 )	Kg	45					
16	Communication Cable HYV2 ( 5 x 2 x 0.5 )	M	44					
17	Communication Cable HPVY ( 5 x 2 x 0.5 )	M	6					
18	Duty Desk HPVY ( 5 x 2 x 0.5 )	Set	1					
19	Red brick	Piece	800					

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

SUB FIRE STATION AC

Item No.	Description of Works Facilities	Specifications	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined Total China RMB
					Rate	Amount	Rate	Amount	
1	CABINET AIR-CONDITIONER OUTDOOR RY125FY1 INDOOR FVY125FV1	Q <sub>L</sub> =13KW Q <sub>H</sub> =14.2KW N=4KW U=380V	SET	6					
2	SPLIT WALL-TYPE AIR-CONDITIONER OUTDOOR RY223VIC INDOOR FTY2233BVIC	Q <sub>L</sub> =2.4KW Q <sub>H</sub> =3.1KW N=1.13KW U=220V	SET	1					
3	SPLIT WALL-TYPE AIR-CONDITIONER OUTDOOR RY453VIC INDOOR FTY4533BVIC	Q <sub>L</sub> =4.85KW Q <sub>H</sub> =5.50KW N=1.93KW U=220V	SET	5					
4	SPLIT WALL-TYPE AIR-CONDITIONER OUTDOOR RY353VIC INDOOR FTY3533BVIC	Q <sub>L</sub> =3.50KW Q <sub>H</sub> =4.07KW N=1.49KW U=220V	SET	5					

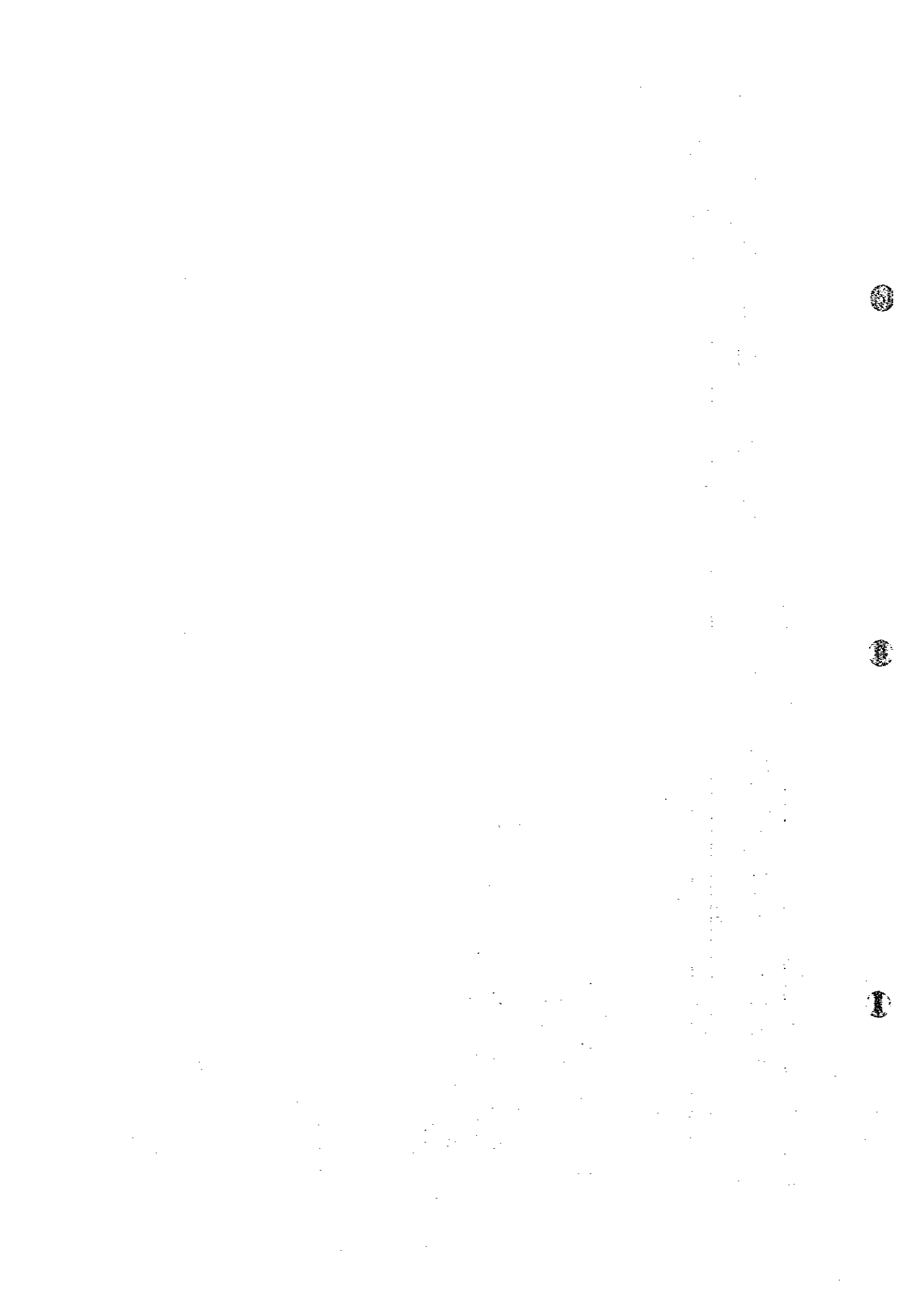
Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)

SUB FIRE STATION EXHAUST

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined Total China RMB
				Rate	Amount	Rate	Amount	
1	LOW-NOISE DIAGONAL FLOW FAN SWF7# L=15334m <sup>3</sup> /h H=370Pa N=4KW U=380V		1					
2	EXPLOSION-PROOF LOW-NOISE AXIAL FAN BDZ-12 3C# L=1600m <sup>3</sup> /h N=0.06KW U=380V		1					
3	EXHAUST FAN L=1200m <sup>3</sup> /h N=50W U=220V		1					
4	ALUMINUM ALLOY SINGLE-LAYER LOUVER VENT 500X320		6					
5	MICRO-POROUS PLATE SILENCER 1000X500		1					
6	GALVARNIZED STEEL PLATE L=2000mm/ (=1.0mm)	m <sup>2</sup>	110					
7	UMBRELLA-TYPE HOOD 12#		1					

Shanghai Pudong International Airport Proj. - (Airside Civil Works)  
 Indoor Water Supply And Drainage For Sub fire Station

Item No.	Description of Works Item	Model/Size	Unit	Quantity	Foreign Cost Component (Ycn)		Local Cost Component (China RMB)		Combined Total China RMB
					Rate	Amount	Rate	Amount	
1	GALVANIZED STEEL PIPE	DN15	m	15					
2	GALVANIZED STEEL PIPE	DN20	m	8					
3	GALVANIZED STEEL PIPE	DN25	m	25					
4	GALVANIZED STEEL PIPE	DN32	m	11					
5	GALVANIZED STEEL PIPE	DN40	m	12					
6	GALVANIZED STEEL PIPE	DN50	m	4					
7	GALVANIZED STEEL PIPE	DN65	m	16					
8	GALVANIZED STEEL PIPE	DN80	m	17					
9	CAST IRON PIPE FOR DRAINAGE	DN50	m	15					
10	CAST IRON PIPE FOR DRAINAGE	DN75	m	9					
11	CAST IRON PIPE FOR DRAINAGE	DN100	m	17					
12	FAUCET	DN15		9					
13	STOP VALVES	DN25		1					
14	STOP VALVES	DN32		3					
15	STOP VALVES	DN40		2					
16	WASHING BASIN	560X480		4					
17	WASHING SINK	610X460		1					
18	W.C PAN			4					
19	URINAL			6					
20	SHOWER NOZZLE			3					
21	HOT WATER HEATER	1.5Kw		3					
22	BOILING WATER	9.0Kw		1					
23	FLOOR DRAIN	DN50		1					
24	FLOOR DRAIN	DN75		1					
25	INSPECTION HOLE	DN100		1					
26	VENT CAP			1					
27	FIRE EXTINGUISHER			20					
28	FIRE HYDRANT	DN65		4					





**PART-2-4 Fire Hydrant And Pump Room**



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

**Fire Pump Station (Building Works)**

No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined China Total RMB
				Rate	Amount	Rate	Amount	
	<b>Foundation Works</b>							
1	Standard Of Brick Foundation Without R.C. Waterproof Bend	M <sup>3</sup>	29.19					
2	Girder Strip Base C20 (H<1.5m)	M <sup>3</sup>	38.07					
	<b>Column &amp; Beam Works</b>							
3	R.C.Beams (C30)	M <sup>3</sup>	7.10					
4	Columns, Higher Than 3.6m,Add 3.0m	M <sup>3</sup>	8.10					
5	Beams, Higher Than 3.6m,Add 3.0m	M <sup>3</sup>	7.11					
	<b>Walls Works</b>							
6	Standard Brick Wall	M <sup>2</sup>	366.47					
7	Standard Brick Partition	M <sup>2</sup>	183.60					
8	Iron Sheet Rainwater Pipe (D45cm)	M	20.60					
9	Parapet Down spout Elbow (D100)	Set	4.00					
10	External Scaffolding ( H<12m)	M <sup>2</sup>	518.40					
11	Internal Scaffolding ( H>3.6m)	M <sup>2</sup>	194.40					
12	Full Scaffolding (3.61<H<5.80m)	M <sup>2</sup>	294.74					

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

Fire Pump Station (Building Works)

No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined China Total RMB
				Rate	Amount	Rate	Amount	
	<b>Ground, Floor Roof Works</b>							
13	Land Grading	M <sup>2</sup>	294.74					
14	Indoor Backfill	M <sup>2</sup>	294.74					
15	Bedding Mortar (Thickness=1cm)	M <sup>2</sup>	284.31					
16	Bedding Concrete (Thickness=1cm C15)	M <sup>2</sup>	284.31					
17	Cement Mortar Coat Polishing And Solidifying Thickness=2cm	M <sup>2</sup>	284.31					
18	Cast-In Place Reinforced Concrete Bean And Shed	M <sup>2</sup>	294.74					
19	Cast-In-Place Slab (11<3.6m<3.0m)	M <sup>2</sup>	294.74					
20	Concrete Apron C15	M <sup>2</sup>	63.32					
21	Concrete Ramp C15	M <sup>2</sup>	56.88					
22	Multicolored Spray-On Ceiling	M <sup>2</sup>	294.74					
23	Level Coat Of Cement Mortar (Thickness=2cm)	M <sup>2</sup>	568.62					
24	Waterproof Layer With E.P.D.M. Of Roof.H=1mm	M <sup>2</sup>	294.74					
25	Concrete Steps C20 With Cement Dressing	M <sup>2</sup>	1.80					
26	Water Shed Flat Sun-shading Board	M <sup>2</sup>	17.88					
	<b>Door &amp; Window Works</b>							
27	Sliding Window Silver Aluminum Alloy	M <sup>2</sup>	7.56					

**Shanghai Pudong International Airport Project (Fire Fighting and Rescue Facilities)**  
**Fire Pump Station (Building Works)**

No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined China Total RMB
				Rate	Amount	Rate	Amount	
28	Plywood-Veneered	M <sup>2</sup>	10.08					
29	Silver Aluminium Alloy Louver Window	M <sup>2</sup>	3.70					
30	Silver Aluminium Alloy Casement Door	M <sup>2</sup>	2.43					
31	Steel Window In The Transformer Bank	M <sup>2</sup>	29.16					
32	Steel window With Screen	M <sup>2</sup>	5.40					
	<b>Door &amp; Window Works</b>							
33	Multi-Color Paint Wall And Columns	M <sup>2</sup>	742.58					
34	Non Glazed Till 95*45	M <sup>2</sup>	470.15					
	<b>Acid-Resistant, Preservation, Heat Reserving Work</b>							
35	Cast-in-site perlite concrete	M <sup>3</sup>	13.26					
	<b>Earth Works</b>							
36	Earth Works	M <sup>3</sup>	154.00					

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

FIRE PUMP STATION POWER SUPPLY LIGHTING

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined Total China RMB
				Rate	Amount	Rate	Amount	
1	THREE-PHASE TRANSFORMER							
2	HIGH -VOLTAGE SWITCH BOARD		2					
3	HIGH -VOLTAGE SWITCH BOARD		2					
4	HIGH -VOLTAGE SWITCH BOARD		2					
5	LOW-VOLTAGE SWITCH BOARD		2					
6	LOW-VOLTAGE SWITCH BOARD		2					
7	LOW-VOLTAGE SWITCH BOARD		2					
8	LOW-VOLTAGE SWITCH BOARD		1					
9	VALVE CONTROL SWITCH BOARD		1					
10	ELECTRICALLY OPERATED FACILITIES FOR VALVE		6					
11	ELECTRIC CONNECTION PRESSURE METER		3					
12	FUSE		1					
13	RELAY		3					
14	VALVE CONTROL UNIT		6					
15	CONTROL BUTTON		3					
16	1PHASE SOCKET		2					
17	LIGHTING/RECEPTACLE DISTRIBUTION BOX		1					
18	SWITCH		7					
19	WATER AND DUST PROOF OVERHEAD LIGHT		7					
20	WALL FITTING		8					
21	FLUORESCENT		7					

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

FIRE PUMP STATION POWER SUPPLY LIGHTING

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined Total China RMB
				Rate	Amount	Rate	Amount	
22	CEILING FAN		1					
23	HANGING UP INDUSTRIAL LAMP		8					
24	3-PHASE SOCKET		3					
25	SWITCH ENCLOSED		10					
26	CABLE	METER	250					
27	CABLE	METER	50					
28	LIGHTNING DISCHARGE WIRE	METER	140					
29	GROUNDING ELECTRODE	METER	22					
30	EARTH WIRE	METER	200					
31	ELECTRIC PIPE	METER	24					
32	ELECTRIC PIPE	METER	30					
33	ELECTRIC PIPE	METER	105					
34	ELECTRIC PIPE	METER	35					
35	ELECTRIC PIPE	METER	300					
36	POWER INTAKE CABLE	METER	30					
37	POWER SUPPLY CABLE	METER	80					
38	POWER SUPPLY CABLE	METER	30					
39	POWER SUPPLY CABLE	METER	185					
40	POWER CONTROL CABLE	METER	150					
41	POWER CONTROL CABLE	METER	80					
42	POWER CONTROL CABLE	METER	70					
43	CONTROL BUTTON BOX		3					

Shanghai Pudong International Airport Project ( Fire Fighting and Rescue Facilities)  
 Technological Design of Telephone For Fire Pump Station

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined Total China RMB
				Rate	Amount	Rate	Amount	
1	Jumper Cabinet (XRI101-1)	Set	1					
2	Outlet Connection Unit	Set	2					
3	Telephone Line	M	3					
4	Steel Pipe ( G50 )	M	20					
5	Steel Pipe ( G15 )	M	20					
6	Communication Cable	M	50					



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

Item No.	Description of Works Facilities	Specifications	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined Total China RMB
					Rate	Amount	Rate	Amount	
1	SPLIT WALL-TYPE AIR-CONDITIONER OUTDOOR RY223VIC INDOOR FTY2233BVIC	Q <sub>L</sub> =2.4KW Q <sub>H</sub> =3.1KW N=1.13KW U=220V	SET	1					

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

Item No.	Description of Works		Unit	Quantity	Foreign Cost Component ( Yen )		Local Cost Component ( China RMB )		Combined Total China RMB
	Name	Specification			Rate	Amount	Rate	Amount	
1	Water Pump	8sh-9	Set	3					
2	Motor	Y280S,N=75kw	Set	3					
3	Electric Butterfly Valve	D971X-10, DN300	Set	3					
4	Electric Butterfly Valve	D971X-10, DN250	Set	3					
5	Slowly Check Valve	HH44T-10, DN250	Piece	3					
6	Gate Valve	Z41T-10, DN400	Piece	2					
7	Butterfly Valve	D371X-10, DN200	Piece	2					
8	Operated Single by Hand	WA2	Set	1					
9	Derrick by Hand	HS2	Set	1					
10	Single Truck I steel Beam	32a	M	16					
11	Electric Contact Pressure Gage	YX-150, 0-10	Piece	3					
12	Vacuum Gage	Z-150	Piece	3					
13	Big/Small eccentricity Connector	DN=300x200	Piece	3					
14	Big/Small Connector	DN=250x125	Piece	3					
15	Flexible Rubber Connector	DN250	Piece	3					
16	Suction Horn Mouth	DN=300x450	Set	3					
17	Overflow	DN=300x200	Set	1					

**Shanghai Pudong International Airport Project ( fire Fighting and Rescue Facilities )  
Fire Pump Room**

Item No.	Description of Works		Unit	Quantity	Foreign Cost Component ( Yen )		Local Cost Component ( China RMB )		Combined Total China RMB
	Name	Specification			Rate	Amount	Rate	Amount	
18	Valve Pit	D1400	Set	3					
19	Water-proof Sleeve	D377	Set	3					
20	Water-proof Sleeve	D273	Set	3					
21	Flexible Rubber Connector	DN300	Piece	3					
22	Water Level Float		Set	1					
23	Float valve	100X-0200.DN201	Set	1					
24	Ductile Iron Pipe	DN400	M	12					
25	Ductile Iron Pipe	DN300	M	39					
26	Ductile Iron Pipe	DN200	M	25					
27	Self-suction Pump	51-4A	Set	1					
28	seamless Steel Pipe	D426x10	M	13					
29	seamless Steel Pipe	D325x8	M	3					
30	seamless Steel Pipe	D273x7	M	3					
31	Galvanized Steel Pipe	DN50	M	3					
32	Galvanized Steel Pipe	DN25	M	12					
33	Galvanized Steel Pipe	DN20	M	9					
34	Gate Valve	Z41T-10, DN50	Piece	3					

**Shanghai Pudong International Airport Project ( fire Fighting and Rescue Facilities )  
Fire Pump Room**

Item No.	Description of Works		Unit	Quantity	Foreign Cost Component ( Yen )		Local Cost Component ( China RMB )		Combined Total China RMB
					Rate	Amount	Rate	Amount	
	Name	Specification							
35	Rapid Connector	D50	Piece	3					
36	Stop Valve	DN25	M	1					
37	Stop Valve	DN20	M	1					
38	Water Tap	DN20	M	1					
39	Iron Drainage pipe	DN75	M	15					
40	Iron Drainage pipe	DN50	M	8					
41	Floor Drain	DN50	Piece	1					
42	Flexible Rubber Joint	DN200	Piece	3					
43	Flexible Rubber Connector	DN25	Piece	1					
44	Flexible Rubber Connector	DN300	Piece	3					
45	Seamless Steel Pipe	D159x5	M	12					
46	Butterfly Valve	D371X-10, DN200	M	2					
47	Clean-out	DN50	Piece	1					

**Shanghai Pudong International Airport Project ( Fire Fighting and Rescue Facilities )  
Fire Water Supply System For Flying Area ( Southern Area )**

Item No.	Description of Works		Unit	Quantity	Foreign Cost Component ( Yen )		Local Cost Component ( China RMB )		Combined Total China RMB
					Rote	Amount	Rote	Amount	
	Name	Specification							
1	Ductile Iron Pipe	DN400	M	810					
2	Ductile Iron Pipe	DN350	M	2720					
3	Ductile Iron Pipe	DN300	M	539					
4	Ductile Iron Pipe	DN250	M	510					
5	Ductile Iron Pipe	DN150	M	95					
6	Seamless Steel Pipe	D426x11	M	499					
7	Seamless Steel Pipe	D377x10	M	241					
8	Seamless Steel Pipe	D325x9	M	18					
9	Welded Steel Pipe	DN600	M	468					
10	Welded Steel Pipe	DN500	M	223					
11	Worm-driven Butterfly Valve	D341X-10, DN400	Set	8					
12	Worm-driven Butterfly Valve	D341X-10, DN350	Set	6					
13	Worm-driven Butterfly Valve	D341X-10, DN300	Set	2					
14	Fire Hydrant	SS100-1.0	Set	66					
15	Hydrant Chamber	D630	Set	66					
16	Special Non-standard Well Seat	D600	Set	66					
17	Valve Chamber	D1400	Set	2					

**Shanghai Pudong International Airport Project ( fire Fighting and Rescue Facilities )  
Fire Water Supply System For Flying Area ( Southern Area )**

Item No.	Description of Works		Unit	Quantity	Foreign Cost Component ( Yen )		Local Cost Component ( China RMB )		Combined Total China RMB
	Name	Specification			Rate	Amount	Rate	Amount	
18	Valve Chamber	D1600	set	14					
19	Special Non-standard Well Seat	D600	Set	15					
20	Water Meter Chamber		Set	1					
21	Combined Exhaust Valve	MK-CAR, DN50	Set	2					
22	Butterfly Valve	D71X-10, DN50	Set	2					

**Shanghai Pudong International Airport Project ( fire Fighting and Rescue Facilities )  
Fire Water Supply System For Flying Area ( Northern Area )**

Item No.	Description of Works		Unit	Quantity	Foreign Cost Component ( Yen )		Local Cost Component ( China RMB )		Combined Total China RMB
	Name	Specification			Rote	Amount	Rote	Amount	
1	Ductile Iron Pipe	DN400	M	1134					
2	Ductile Iron Pipe	DN350	M	4717					
3	Ductile Iron Pipe	DN300	M	623					
4	Ductile Iron Pipe	DN250	M	601					
5	Ductile Iron Pipe	DN150	M	317					
6	Seamless Steel Pipe	D426x11	M	519					
7	Seamless Steel Pipe	D377x10	M	371					
8	Seamless Steel Pipe	D325x9	M	18					
9	Welded Steel Pipe	DN600	M	491					
10	Welded Steel Pipe	DN500	M	346					
11	Worm-driven Butterfly Valve	D341X-10, DN400	Set	6					
12	Worm-driven Butterfly Valve	D341X-10, DN350	Set	9					
13	Worm-driven Butterfly Valve	D341X-10, DN300	Set	1					
14	Fire Hydrant	SS100-1.0	Set	78					
15	Hydrant Chamber	D630	Set	78					
16	Special Non-standard Well Seat	D600	Set	78					
17	Valve Chamber	D1400	Set	2					

**Shanghai Pudong International Airport Project ( fire Fighting and Rescue Facilities )  
Fire Water Supply System For Flying Area ( Northern Area )**

Item No.	Description of Works		Unit	Quantity	Foreign Cost Component ( Yen )		Local Cost Component ( China RMB )		Combined Total China RMB
	Name	Specification			Rate	Amount	Rate	Amount	
18	Valve Chamber	D1600	set	16					
19	Special Non-standard Well Seat	D600	Set	17					
20	Water Meter Chamber		Set	1					
21	Combined Exhaust Valve	MK-CAR, DN50	Set	3					
22	Butterfly Valve	D71X-10, DN50	Set	3					



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

Fire Water Supply for Apron

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component ( Yen )		Local Cost Component ( China RMB )		Combined Total China RMB
				Rate	Amount	Rate	Amount	
1	Welded Steel Pipe	M	410					
2	Seamless Steel Pipe	M	630					
3	Water Supply Ductile Iron Pipe	M	450					
4	Water Supply Ductile Iron Pipe	M	3530					
5	Galvanized Steel Pipe	M	1625					
6	Butterfly Valve	Piece	5					
7	Butterfly Valve	Piece	23					
8	Ball Valve	Piece	42					
9	Stop Valve	Piece	42					
10	Underground Fire Hydrant	Set	42					
11	the Cast Iron Body and Cover of the well(alloy aluminum)	Set	42					
12	Water Supply Hydrant	Piece	42					
13	Water Supply Valve Well	Piece	5					
14	Water Supply Valve Well	Piece	23					

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

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component (Ycn)		Local Cost Component (China RMB)		Combined Total China RMB
				Rate	Amount	Rate	Amount	
<b>Column &amp; Beam Works</b>								
1	R. C. Column (C20L≤1.2m)	M <sup>3</sup>	3.60					
<b>RC Works</b>								
2	R. C. Foundation (C20H≤4.0m)	M <sup>3</sup>	29.57					
3	R. C. Wall (C20)	M <sup>3</sup>	54.38					
4	R. C. Floor (C20)	M <sup>3</sup>	23.66					
<b>Earth Works</b>								
6	Earth Works	M <sup>3</sup>	591.00					

**PART-3 GRAND SUMMARY**



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

Item No.	Description of Works	Unit	Quantity	Foreign Cost Component (Yen)		Local Cost Component (China RMB)		Combined Total China RMB
				Rate	Amount	Rate	Amount	
<b>1</b>	<b>Grand Summary</b>							
	Preliminary and General Items							
2	Main Fire Station							
3	First Aid Garage							
4	Sub Fire Station							
5	Fire Hydrant and Pump Room							
A	Subtotal of Bills (Items 1 to 5)							
B	Specified Provisional Sums included in Subtotal of Bills							
C	Total of Bills Less Specified Provisional Sums (A-B)							
D	Add Provisional Sum for Contingencies Allowance							
E	Tender Price (A+D) (Carried forward to Form of Tender)							



1

2

3







JICA