

Item No.

Work: Placing concrete by concrete bucket w/truck crane

Remarks: 100m³, bucket 1.0m³, 30t crane

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.513	0.00	0.00	20600.00	10567.80	0.00	0.00
Operator	md	1.282	0.00	0.00	25600.00	32819.20	0.00	0.00
Assist operator	md	1.282	0.00	0.00	17900.00	22947.80	0.00	0.00
Concrete worker	md	4.000	0.00	0.00	19000.00	76000.00	0.00	0.00
Common labor	md	2.000	0.00	0.00	17300.00	34600.00	0.00	0.00
Subtotal				0.00		176934.80		0.00
Material cost								
Light oil	lit	99.996	4.00	399.98	353.00	35298.59	1.00	100.00
Lubricant	lit	0.640	44.00	28.16	4150.00	2656.00	500.00	320.00
Grease	kg	1.667	58.00	96.69	5395.00	8993.47	650.00	1083.55
Electric***	kwh	10.000	7.00	70.00	281.00	2810.00	8.00	80.00
Miscellaneous(3%)				17.84		1492.74		47.51
Subtotal				612.67		51250.79		1631.05
Equipment cost								
Truck crane, 30t	hr	8.333	5705.00	47539.77	22654.00	188775.78	0.00	0.00
Concrete bucket, 1.0m ³	day	1.282	2115.00	2711.43	7822.60	10027.80	0.00	0.00
Vibrator, 45mm	day	4.000	493.00	1972.00	1331.00	5324.00	0.00	0.00
Miscellaneous(5%)				2611.16		10206.38		0.00
Subtotal				54834.35		214333.97		0.00
Overhead				13861.76		110629.89		407.76
Total				69308.79		553149.45		2038.82
Unit price				693.09		5531.49		20.39

Item No.
 Work: Formwork, F1
 Remarks: in 2, wall etc.
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.012	0.00	0.00	20650.00	247.20	0.00	0.00
Rigger	md	0.117	0.00	0.00	19000.00	2223.00	0.00	0.00
Carpenter	md	0.152	0.00	0.00	19000.00	2888.00	0.00	0.00
Common labor	md	0.152	0.00	0.00	17300.00	2629.60	0.00	0.00
Subtotal				0.00		7987.80		0.00
Material cost								
Metal form, 300*1500	No.	0.053	2782.00	147.45	3130.00	165.89	0.00	0.00
Metal form, 200*1500	No.	0.005	2782.00	13.91	3130.00	15.65	0.00	0.00
Channel steel	kg	1.000	36.00	36.00	467.00	467.00	123.00	123.00
Cone	No.	0.877	19.00	16.66	21.00	18.42	0.00	0.00
Separator, 8-10mm	m	0.746	71.00	52.97	80.00	59.68	0.00	0.00
Form oil	lit	0.019	321.00	6.10	361.00	6.86	0.00	0.00
Timber, log	m ³	0.003	1067.00	3.20	99600.00	298.80	12000.00	36.00
Miscellaneous(31)				8.29		30.97		4.77
Subtotal				284.57		1063.26		163.77
Overhead				71.14		2262.77		40.94
Total				355.72		11313.83		204.71

Item No.

Work: Forework

Remarks: 1#2, open channel

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.009	0.00	0.00	20600.00	185.40	0.00	0.00
Concrete worker	md	0.090	0.00	0.00	19000.00	1710.00	0.00	0.00
Rigger	md	0.090	0.00	0.00	19000.00	1710.00	0.00	0.00
Operator	md	0.015	0.00	0.00	25600.00	384.00	0.00	0.00
Assist operator	md	0.015	0.00	0.00	17900.00	268.50	0.00	0.00
Skilled labor	md	0.018	0.00	0.00	20900.00	376.20	0.00	0.00
Common labor	md	0.161	0.00	0.00	17300.00	2785.30	0.00	0.00
Subtotal				0.00		7419.40		0.00
Material cost								
Metal form, 300*1500	No.	0.084	2782.00	233.69	3130.00	262.92	0.00	0.00
Steel angle	kg	0.717	36.00	25.81	467.00	334.84	123.00	88.19
Channel steel	kg	2.800	36.00	100.80	467.00	1307.60	123.00	344.40
Clamp	No.	0.415	300.00	124.50	338.00	140.27	0.00	0.00
Clip	No.	0.414	37.00	15.32	42.00	17.39	0.00	0.00
Anchor bolt, 22mm, 400mm	No.	0.889	171.00	152.02	192.00	170.69	0.00	0.00
Timber plank	m3	0.011	2089.00	22.98	195050.00	2145.55	23500.00	258.50
Light oil	lit	0.480	4.00	1.92	353.00	169.44	1.00	0.48
Lubricant	lit	0.024	44.00	1.06	4150.00	99.60	500.00	12.00
Grease	kg	0.010	58.00	0.58	5395.00	53.95	650.00	6.50
Miscellaneous(3%)				20.36		141.07		21.30
Subtotal				699.03		4843.31		731.37
Equipment cost								
Wheel crane	hr	0.122	2167.00	264.37	8694.00	1049.69	0.00	0.00
Miscellaneous(5%)				13.22		52.48		0.00
Subtotal				277.59		1102.17		0.00
Overhead				244.16		3341.22		182.84
Total				1220.78		16706.11		914.22

Item No.
 Work: Formwork, F3, F4
 Remarks: 1m2
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.021	0.00	0.00	20600.00	432.60	0.00	0.00
Rigger	nd	0.210	0.00	0.00	19000.00	3990.00	0.00	0.00
Carpenter*	nd	0.375	0.00	0.00	19000.00	7125.00	0.00	0.00
Common labor*	nd	0.375	0.00	0.00	17300.00	6487.50	0.00	0.00
Subtotal				0.00		18035.10		0.00
Material cost								
Metal form, 300*1500	No.	0.101	2782.00	280.98	3130.00	316.13	0.00	0.00
Timber, plank	m3	0.006	2089.00	12.53	195050.00	1170.30	23500.00	141.00
Timber, square	m3	0.006	1244.00	7.46	116200.00	697.20	14000.00	84.00
Form oil	lit	0.050	321.00	16.05	361.00	18.05	0.00	0.00
Miscellaneous (3%)				9.51		66.05		6.75
Subtotal				326.54		2267.73		231.75
Overhead				81.64		5975.71		57.94
Total				408.18		25378.54		289.69

Item No.

Work:Forawork,P2

Remarks:lm2

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.001	0.00	0.00	20600.00	20.60	0.00	
Rigger	md	0.011	0.00	0.00	19000.00	209.00	0.00	
Carpenter*	md	0.300	0.00	0.00	19000.00	5700.00	0.00	
Common labor*	md	0.300	0.00	0.00	17300.00	5190.00	0.00	
Subtotal				0.00		11119.60	0.00	
Material cost								
Metal form,300*1500	No.	0.101	2782.00	280.98	3130.00	316.13	0.00	
Timber,plank	m3	0.001	2089.00	2.09	195050.00	195.05	23500.00	
Timber,square	m3	0.004	1244.00	4.98	116200.00	464.80	14000.00	
Form oil	lit	0.160	321.00	51.36	361.00	57.76	0.00	
Miscellaneous(3%)				10.18		31.01	2.39	
Subtotal				349.59		1064.75	81.89	
Overhead				87.40		3046.09	20.47	
Total				436.99		15230.44	102.36	

Item No.
 Work: Formwork, F2, F3
 Remarks: 1m2
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.004	0.00	0.00	20600.00	82.40	0.00	0.00
Rigger	md	0.038	0.00	0.00	19000.00	722.00	0.00	0.00
Carpenter†	md	0.375	0.00	0.00	19000.00	7125.00	0.00	0.00
Common labor†	md	0.375	0.00	0.00	17300.00	6487.50	0.00	0.00
Subtotal				0.00		14416.90		0.00
Material cost								
Metal form, 300*1500	No.	0.076	2782.00	211.43	3130.00	237.88	0.00	0.00
Timber, plank	m3	0.001	2089.00	2.09	195050.00	195.05	23500.00	23.50
Timber, square	m3	0.010	1244.00	12.44	116200.00	1162.00	14000.00	140.00
Form oil	lit	0.140	321.00	44.94	361.00	50.54	0.00	0.00
Miscellaneous(3%)				8.13		49.36		4.91
Subtotal				279.03		1694.83		168.41
Overhead				69.76		4027.93		42.10
Total				348.79		20139.67		210.51

Item No.

Work:Forawork,Fl

Remarks:lm2

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.001	0.00	0.00	20600.00	20.60	0.00	
Rigger	nd	0.011	0.00	0.00	19000.00	209.00	0.00	
Carpenter*	nd	0.300	0.00	0.00	19000.00	5700.00	0.00	
Common labor*	nd	0.300	0.00	0.00	17300.00	5190.00	0.00	
Subtotal				0.00		11119.60	0.00	
Material cost								
Metal form,300*1500	No.	0.076	2782.00	211.43	3130.00	237.88	0.00	
Timber,plank	m3	0.001	2089.00	2.09	195050.00	195.05	23500.00	
Timber,square	m3	0.006	1244.00	7.46	116200.00	697.20	14000.00	
Form oil	lit	0.160	321.00	51.36	361.00	57.76	0.00	
Miscellaneous(3%)				8.17		35.64	3.23	
Subtotal				280.52		1223.53	110.73	
Overhead				70.13		3085.78	27.68	
Total				350.64		15428.91	138.41	

Item No.

Work: Forawork, F1

Remarks: 1ø2, side ditch, pit, foundation conc

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.011	0.00	0.00	20600.00	226.60	0.00	0.00
Carpenter A	sd	0.113	0.00	0.00	19000.00	2147.00	0.00	0.00
Carpenter B*	md	0.225	0.00	0.00	17300.00	3892.50	0.00	0.00
Common labor*	md	0.225	0.00	0.00	17300.00	3892.50	0.00	0.00
Subtotal				0.00		10158.60		0.00
Material cost								
Timber, plank	m3	0.005	2089.00	10.45	195050.00	975.25	23500.00	117.50
Timber, square	m3	0.007	1244.00	8.71	116200.00	813.40	14000.00	98.00
Miscellaneous(3%)				0.57		53.66		6.47
Subtotal				19.73		1842.31		221.97
Overhead				4.93		3000.23		55.49
Total				24.66		15001.14		277.46

Item No.

Work:waterstop,type A 300mm

Remarks:lm

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.030	0.00	0.00	20600.00	618.00	0.00	0.00
Concrete worker	md	0.100	0.00	0.00	19000.00	1900.00	0.00	0.00
Common labor	md	0.100	0.00	0.00	17300.00	1730.00	0.00	0.00
Subtotal				0.00		4248.00		0.00
Material cost								
PVC waterstop,300mm	m	1.000	2611.00	2611.00	2937.00	2937.00	0.00	0.00
Miscellaneous(31)				78.33		88.11		0.00
Subtotal				2689.33		3025.11		0.00
Overhead				672.33		1818.28		0.00
Total				3361.66		9091.39		0.00

Item No.
 Work:Waterstop,type B 200mm
 Remarks:1m
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.030	0.00	0.00	20600.00	618.00	0.00	0.00
Concrete worker	md	0.100	0.00	0.00	19000.00	1900.00	0.00	0.00
Common labor	md	0.100	0.00	0.00	17300.00	1730.00	0.00	0.00
Subtotal				0.00		4248.00		0.00
Material cost								
PVC waterstop,200mm	m	1.000	1338.00	1338.00	1505.00	1505.00	0.00	0.00
Miscellaneous(31)				40.14		45.15		0.00
Subtotal				1378.14		1550.15		0.00
Overhead				344.54		1449.54		0.00
Total				1722.68		7247.69		0.00

Item No.
 Work: Joint filler, 10mm
 Remarks: 1m2
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost							
Foreman	nd 0.030	0.00	0.00	20600.00	618.00	0.00	0.00
Concrete worker	nd 0.050	0.00	0.00	19000.00	950.00	0.00	0.00
Common labor	nd 0.050	0.00	0.00	17300.00	865.00	0.00	0.00
Subtotal			0.00		2433.00		0.00
Material cost							
Joint filler, 10mm	m2 1.050	899.00	943.95	1011.00	1061.55	0.00	0.00
Miscellaneous(3%)			28.32		31.85		0.00
Subtotal			972.27		1093.40		0.00
Overhead			243.07		881.60		0.00
Total			1215.34		4408.00		0.00

Item No.
 Work: Joint filler, 20mm
 Remarks: 1m2
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost							
Foreman	nd 0.030	0.00	0.00	20600.00	618.00	0.00	0.00
Concrete worker	nd 0.050	0.00	0.00	19000.00	950.00	0.00	0.00
Common labor	nd 0.050	0.00	0.00	17300.00	865.00	0.00	0.00
Subtotal			0.00		2433.00		0.00
Material cost							
Joint filler, 20mm	m2 1.050	1798.00	1887.90	2023.00	2124.15	0.00	0.00
Miscellaneous(3%)			56.64		63.72		0.00
Subtotal			1944.54		2187.87		0.00
Overhead			486.13		1155.22		0.00
Total			2430.67		5776.09		0.00

Item No.
 Work: Mortar 1:1
 Remarks: 1m3, mixing with hand
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.033	0.00	0.00	20600.00	679.80	0.00	0.00
Skilled labor	md	0.330	0.00	0.00	20900.00	6897.00	0.00	0.00
Common labor	md	1.650	0.00	0.00	17300.00	28545.00	0.00	0.00
Subtotal				0.00		36121.80		0.00
Material cost								
Portland cement	ton	1.100	4969.00	5465.90	65360.00	71896.00	17200.00	18920.00
Aggregate, fine***	m3	0.750	1276.00	957.00	12301.00	9225.75	4101.00	3075.75
Aggregate, coarse***	m3	0.000	1060.00	0.00	10216.00	0.00	3406.00	0.00
Miscellaneous(3%)				192.69		2433.65		659.87
Subtotal				6615.59		83555.40		22655.62
Overhead				1653.90		29919.30		5663.91
Total				8269.48		149596.50		28319.53
Unit price(exclude overhead)				6615.59		119677.20		22655.62

Item No.
 Work: Mortar 1:2
 Remarks: 1m3, mixing with hand
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.030	0.00	0.00	20600.00	618.00	0.00	0.00
Skilled labor	md	0.300	0.00	0.00	20900.00	6270.00	0.00	0.00
Common labor	md	1.500	0.00	0.00	17300.00	25950.00	0.00	0.00
Subtotal				0.00		32838.00		0.00
Material cost								
Portland cement	ton	0.720	4969.00	3577.68	65360.00	47059.20	17200.00	12384.00
Aggregate, fine***	m3	0.950	1276.00	1212.20	12301.00	11685.95	4101.00	3895.95
Aggregate, coarse***	m3	0.000	1060.00	0.00	10216.00	0.00	3406.00	0.00
Miscellaneous(3%)				143.70		1762.35		488.40
Subtotal				4933.58		60507.50		16768.35
Overhead				1233.39		23336.38		4192.09
Total				6166.97		116681.88		20960.44
Unit price(exclude overhead)				4933.58		93345.50		16768.35

Item No.
 Work: Carrying concrete
 Remarks: 100m3, 3000m
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.308	0.00	0.00	20600.00	6344.80	0.00	0.00
Driver	md	3.077	0.00	0.00	18100.00	55693.70	0.00	0.00
Subtotal				0.00		62038.50		0.00
Material cost								
Light oil	lit	300.000	4.00	1200.00	353.00	105900.00	1.00	300.00
Lubricant	lit	6.000	44.00	264.00	4150.00	24900.00	500.00	3000.00
Grease	kg	0.400	58.00	23.20	5395.00	2158.00	650.00	260.00
Miscellaneous(3%)				44.62		3988.74		106.80
Subtotal				1531.82		136946.74		3666.80
Equipment cost								
Agitator truck, 3.2m3	hr	20.000	1517.00	30340.00	6906.00	138120.00	0.00	0.00
Miscellaneous(5%)				1517.00		6906.00		0.00
Subtotal				31857.00		145026.00		0.00
Overhead				8347.20		86002.81		916.70
Total				41736.02		430014.05		4583.50
Unit price				417.36		4300.14		45.84

Item No.

Work: Carrying concrete

Remarks: 100m³, 10000m(10km)

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.810	0.00	0.00	20600.00	16686.00	0.00	0.00
Driver	md	8.097	0.00	0.00	18100.00	146555.70	0.00	0.00
Subtotal				0.00		163241.70		0.00
Material cost								
Light oil	lit	789.450	4.00	3157.80	353.00	278675.85	1.00	789.45
Lubricant	lit	15.789	44.00	694.72	4150.00	65524.35	500.00	7894.50
Grease	kg	1.053	58.00	61.07	5395.00	5680.94	650.00	684.45
Miscellaneous(3%)				117.41		10496.43		281.05
Subtotal				4031.00		360377.57		9649.45
Equipment cost								
Agitator truck, 3.2x3	hr	52.630	1517.00	79839.71	6906.00	363462.78	0.00	0.00
Miscellaneous(5%)				3991.99		18173.14		0.00
Subtotal				83831.70		381635.92		0.00
Overhead				21965.67		226313.80		2412.36
Total				109828.37		1131568.99		12061.82
Unit price				1098.28		11315.69		120.62

Item No.

Work:Reinforcing bar

Remarks:1ton

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	1.020	0.00	0.00	20600.00	21012.00	0.00	0.00
Reinforcement worker	md	10.200	0.00	0.00	19000.00	193800.00	0.00	0.00
Common labor	md	10.400	0.00	0.00	17300.00	179920.00	0.00	0.00
Subtotal				0.00		394732.00		0.00
Material cost								
Round bar	ton	1.000	24556.00	24556.00	323000.00	323000.00	85000.00	85000.00
Annealed iron wire	kg	5.000	58.00	290.00	760.00	3800.00	200.00	1000.00
Miscellaneous(3%)				745.38		9804.00		2580.00
Subtotal				25591.38		336604.00		88580.00
Overhead				6397.85		182834.00		22145.00
Total				31989.23		914170.00		110725.00
Handling, crane	ton	1.000		3807.96		28835.14		297.73
Unit price				35797.19		943005.14		111022.73

Item No.

Work:Waterstop,type C 150mm

Remarks:1m

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.030	0.00	0.00	20600.00	618.00	0.00	0.00
Concrete worker	nd	0.100	0.00	0.00	19000.00	1900.00	0.00	0.00
Common labor	nd	0.100	0.00	0.00	17300.00	1739.00	0.00	0.00
Subtotal				0.00		4248.00		0.00
Material cost								
PVC waterstop,150mm	m	1.000	1059.00	1059.00	1191.00	1191.00	0.00	0.00
Miscellaneous(3%)				31.77		35.73		0.00
Subtotal				1090.77		1226.73		0.00
Overhead				272.69		1368.68		0.00
Total				1363.46		6843.41		0.00

Item No.

Work: Carrying concrete

Remarks: 100m³, 6000m

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.513	0.00	0.00	20600.00	10567.80	0.00	0.00
Driver	md	5.128	0.00	0.00	18100.00	92816.80	0.00	0.00
Subtotal				0.00		103384.60		0.00
Material cost								
Light oil	lit	499.935	4.00	1999.98	353.00	176498.24	1.00	500.00
Lubricant	lit	10.000	44.00	440.00	4150.00	41500.00	500.00	5000.00
Grease	kg	0.667	58.00	38.69	5395.00	3598.47	650.00	433.55
Miscellaneous(3%)				74.36		6647.90		178.01
Subtotal				2553.03		228244.60		6111.55
Equipment cost								
Agitator truck, 3.2m ³	hr	33.333	1517.00	50566.16	6906.00	230197.70	0.00	0.00
Miscellaneous(5%)				2528.31		11509.88		0.00
Subtotal				53094.47		241707.58		0.00
Overhead				13911.87		143334.20		1527.89
Total				69559.37		716670.98		7639.44
Unit price				695.59		7166.71		76.39

N MISCELLANEOUS (1)

Work	Unit	** PC ** (Yen)	LC (S/.)	Duty, Tax (S/.)	** LC ** (S/.)	Total (S/.)	Total (US\$)
Grout pipe, 40mm, contact grout	m	799.54	1502.71	0.00	1502.71	19492.36	8.66
Cooling pipe, 25mm	m	524.01	1084.30	0.00	1084.30	12874.53	5.72
Steel step	kg	65.19	408.50	6.77	415.27	1882.05	0.84
Steel pipe handrail, type A	kg	180.76	1057.39	0.00	1057.39	5124.49	2.28
Steel pipe handrail, type B	kg	180.77	1057.45	0.00	1057.45	5124.78	2.28
Trap	kg	31.91	852.29	110.47	962.76	1680.74	0.75
Fence, type A	m	2321.63	25380.75	2779.25	28160.00	80396.68	35.73
Contraction joint	m	2.58	3944.83	41.20	3986.03	4044.08	1.80
Dowel bar	m	102.14	2917.49	354.31	3271.80	5569.95	2.48
	ton	33600.00	959700.00	116550.00	1076250.00	1832250.00	814.33
Anchor bar in blockout	ton	36960.00	1055670.00	128205.00	1183875.00	2015475.00	895.77
Form, plywood, building	m ²	467.51	40074.29	1999.49	42073.78	52592.76	23.37
Non-embedded metal	ton	55.65	804.27	76.88	881.15	2133.28	0.95
Embedded metal	ton	55.65	1120.63	76.88	1197.51	2449.64	1.09
RC pipe, 200mm	m	836.64	46697.24	1187.36	47884.60	66709.00	29.65
RC pipe, 300mm	m	1286.61	64344.31	1904.03	66248.34	95197.07	42.31
RC pipe, 600mm	m	2515.43	125884.16	3797.85	129682.01	186279.19	82.79
RC pipe, 800mm	m	3631.32	178265.32	5947.91	184213.23	265917.93	118.19
Perforated pipe, 200mm	m	914.99	50220.91	1288.05	51508.96	72096.24	32.04
PVC pipe, 100mm	m	1205.82	2164.20	0.00	2164.20	29295.15	13.02
PVC pipe, 75mm	m	815.99	1726.28	0.00	1726.28	20086.06	8.93
PVC pipe, 50mm	m	416.87	1276.94	0.00	1276.94	10656.52	4.74
Steel pipe, 500mm	m	14411.23	27064.63	119.22	27183.85	351436.53	156.19
Steel pipe, 200mm	m	4297.13	18028.31	0.00	18028.31	114713.74	50.98
	kg	142.76	598.95	0.00	598.95	3811.05	1.69
Steel pipe, 100mm	m	1628.81	15026.63	0.00	15026.63	51674.86	22.97
Steel ladder	kg	46.33	1299.66	134.69	1434.55	2476.98	1.10
Perforated pipe, 150mm	m	722.86	42038.80	1015.99	43054.79	59319.14	26.36
Fence, type A, 2m	kg	85.54	935.18	102.40	1037.58	2962.23	1.32
Steel pipe for water level	kg	147.96	277.87	1.22	279.09	3698.19	1.60
RC pipe, 1000mm	m	4758.41	216340.06	8070.27	224410.33	331474.56	147.32
Reinforcing bar handling, crane	ton	3807.96	28835.14	297.73	29132.87	114811.97	51.03

Item No.

Work: Grout pipe for contact grout

Remarks: 1m, air vent pipe 40mm

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.002	0.00	0.00	20500.00	41.20	0.00	0.00
Pipe fitter	md	0.005	0.00	0.00	19000.00	95.00	0.00	0.00
Common labor	md	0.020	0.00	0.00	17300.00	346.00	0.00	0.00
Subtotal				0.00		482.20		0.00
Material cost:								
Grout pipe, 40mm	m	1.000	621.00	621.00	699.00	699.00	0.00	0.00
Miscellaneous(3%)				18.63		20.97		0.00
Subtotal				639.63		719.97		0.00
Overhead(25%)				159.91		300.54		0.00
Total				799.54		1502.71		0.00

Item No.
 Work: Cooling pipe, 25mm
 Remarks: In
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.002	0.00	0.00	20600.00	41.20	0.00	0.00
Pipe fitter	nd	0.005	0.00	0.00	19000.00	95.00	0.00	0.00
Common labor	nd	0.015	0.00	0.00	17300.00	259.50	0.00	0.00
Subtotal				0.00		395.70		0.00
Material cost								
Cooling pipe, 25mm	m	1.000	407.00	407.00	458.00	458.00	0.00	0.00
Miscellaneous(3%)				12.21		13.74		0.00
Subtotal				419.21		471.74		0.00
Overhead(25%)				104.80		216.86		0.00
Total				524.01		1084.30		0.00

Item No.
 Work: Steel step
 Remarks: 1kg
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Round bar, 16mm	kg	1.600	25.00	40.00	323.00	516.80	85.00	136.00
Steel plate	kg	23.500	54.00	1269.00	60.00	1410.00	0.00	0.00
Manufacture(20%)	L.S.					6275.86		0.00
Overhead(25%)				327.25		2050.67		34.00
Total				1636.25		10253.33		170.00
Unit price(1kg)				65.19		408.50		6.77

Item No.

Work: Steel pipe handrail, type A.

Remarks: 23.72kg, 1.20m, outdoor type

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Material cost								
Steel pipe, 60mm	m	1.200	1049.00	1258.80	1180.00	1416.00	0.00	0.00
Steel pipe, 60mm	m	1.350	1049.00	1416.15	1180.00	1593.00	0.00	0.00
Steel pipe, 35mm	m	1.200	546.00	655.20	614.00	736.80	0.00	0.00
Mortar***	m ³	0.002	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous(3%)				99.90		112.37		0.00
Subtotal				3430.05		3858.17		0.00
Install(20%)	L.S.					16206.88		
Overhead(25%)				857.51		5016.26		0.00
Total				4287.57		25081.32		0.00
Unit price(1kg)				180.76		1057.39		0.00

Item No.

Work: Steel pipe handrail, type B

Remarks: 33.55kg. removal type

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Material cost								
Steel pipe, 60mm	m	3.700	1049.00	3881.30	1180.00	4366.00	0.00	0.00
Steel pipe, 35mm	m	1.000	546.00	546.00	614.00	614.00	0.00	0.00
Steel pipe, 70mm	m	0.230	1231.00	283.13	1385.00	318.55	0.00	0.00
Mortar	m ³	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous(3%)				141.31		158.96		0.00
Subtotal				4851.74		5457.51		0.00
Install(20%)	L.S.					22924.34		
Overhead(25%)				1212.94		7095.46		0.00
Total				6064.68		35477.31		0.00
Unit price(1kg)				180.77		1057.45		0.00

Item No.
Work: Traps
Remarks: lkg
Unit price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Same of round bar**	ton		31914.55		852286.50		110467.50
Unit price(lkg)			31.91		852.29		110.47

Item No.
 Work: Fence, type A, 2.0mH
 Remarks: 10m
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
L-100*100*7	kg	152.500	36.00	5490.00	167.00	71217.50	123.00	18757.50
L-45*45*4	kg	61.200	36.00	2203.20	167.00	28580.40	123.00	7527.60
Steel wire	kg	2.000	58.00	116.00	760.00	1520.00	200.00	400.00
Wire fabric	m ²	20.000	642.00	12840.00	722.00	14440.00	0.00	0.00
Barbed wire	m	39.000	15.00	450.00	24.00	720.00	0.00	0.00
Gravel bedding**	m ³	0.080	1357.07	108.57	35320.75	2825.66	4332.84	346.63
Concrete, E**	m ³	0.060	5120.76	307.25	53803.66	3228.22	12680.05	760.80
Steel plate, 150*150	kg	5.300	321.00	1701.30	361.00	1913.30	0.00	0.00
Subtotal				23216.31		124445.08		27792.53
installation(20%)	L.S.					129362.42		
Total				23216.31		253807.50		27792.53
Unit price(1m)				2321.63		25380.75		2779.25
Unit price(1kg)				85.54		935.18		102.40

Item No.

Work: Contraction joint

Remarks: 1m² Coating with bitumen to break bond

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.010	0.00	0.00	20600.00	206.00	0.00	0.00
Concrete worker	nd	0.050	0.00	0.60	19000.00	950.00	0.00	0.00
Common labor	nd	0.100	0.00	0.00	17300.00	1730.00	0.00	0.00
Subtotal				0.60		2886.00		0.00
Material cost								
Asphalt	kg	2.000	1.00	2.00	131.00	262.00	16.00	32.00
Miscellaneous(3%)				0.06		7.86		0.96
Subtotal				2.06		269.86		32.96
Overhead(25%)				0.52		788.97		8.24
Total				2.58		3944.83		41.20

Item No.

Work:Dowel bar(22mm,300mm pitch,L=1000mm)

Remarks:1m,1ton

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Round bar**	kg	3.040	32.00	97.28	914.00	2778.56	111.00	337.44
Others(5%)				4.86		138.93		16.87
Total(1m)				102.14		2917.49		354.31
Unit price(1ton)				33600.00		959700.00		116550.00

Item No.

Work: Anchor bar and plate in blockout

Remarks: 1ton

Unit price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
10% up			36960.00		1055670.00		128205.00

Item No.

Work:Form,plywood for architectural building

Remarks:1m2

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	ad	0.059	0.00	0.00	20600.00	1215.40	0.00	0.00
Carpenter A	ad	0.591	0.00	0.00	19000.00	11229.00	0.00	0.00
Carpenter B	ad	0.300	0.00	0.00	17300.00	5190.00	0.00	0.00
Common labor	ad	0.300	0.00	0.00	17300.00	5190.00	0.00	0.00
Subtotal				0.00		22824.40		0.00
Material cost								
Plywood	m3	0.011	23333.00	256.66	556500.00	6121.50	105000.00	1155.00
Timber,square	m3	0.016	1244.00	19.90	116200.00	1859.20	14000.00	224.00
Timber,log	m3	0.005	1067.00	5.34	99500.00	498.00	12000.00	60.00
Nail	kg	0.470	58.00	27.26	760.00	357.20	200.00	94.00
Annealed iron wire	kg	6.100	58.00	5.80	760.00	76.00	200.00	20.00
Form oil	lit	0.150	321.00	48.15	361.00	54.15	0.00	0.00
Miscellaneous(3%)				10.89		268.98		46.59
Subtotal				374.01		9235.03		1599.59
Overhead(25%)				93.50		8014.86		399.90
Total				467.51		40074.29		1999.49

Item No.

Work:Non-embedded metal work

Remarks:1ton

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Steel channel,50%	ton	0.500	35533.00	17766.50	467400.00	233703.00	123000.00	61500.00
Steel plate,50%	ton	0.500	53500.00	26750.00	60188.00	30094.00	0.00	0.00
Manufact and install(30%)	L.S.					379624.58		
Overhead(25%)				11129.13		160854.64		15375.00
Total				55645.63		804273.22		76875.00
Unit price(1kg)				55.65		804.27		76.88

Item No.

Work:Embedded metal work

Remarks:1ton

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Steel channel,50%	ton	0.500	35533.00	17766.50	467400.00	233700.00	123000.00	61500.00
Steel plate,50%	ton	0.500	53500.00	26750.00	60188.00	30094.00	0.00	0.00
Manufact and install(50%)	L.S.					632707.63		
Overhead(25%)				11129.13		224125.41		15375.00
Total				55645.63		1120627.03		76875.00
Unit price(1kg)				55.65		1120.63		76.88

Item No.
 Work: RC pipe, 200mm
 Remarks: 1m
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.020	0.00	0.00	20600.00	412.00	0.00	0.00
Pipe fitter	nd	0.165	0.00	0.00	19000.00	3135.00	0.00	0.00
Common labor	nd	0.295	0.00	0.00	17300.00	5103.50	0.00	0.00
Subtotal				0.00		8650.50		0.00
Material cost								
RC pipe, 200mm	m	1.000	608.52	608.52	27368.29	27368.29	782.11	782.11
Portland cement	ton	0.006	4969.00	29.81	65360.00	392.16	17200.00	103.20
Aggregate, fine	m ³	0.009	1276.00	11.48	12301.00	110.71	4101.00	36.91
Miscellaneous(3%)				19.49		836.13		27.67
Subtotal				669.31		28707.29		949.89
Overhead(25%)				167.33		9339.45		237.47
Total				836.64		46697.24		1187.36
Concrete, 4cm								
Form	m ²	1.597	348.79	525.63	20139.67	30359.48	210.51	317.24
Reinforcement	kg	2.400	32.00	76.80	914.00	2193.60	111.00	266.40
Total				760.65		34210.36		977.64
Unit exclude OH(200mm pipe)				608.52		27368.29		782.11

Item No.
 Work: RC pipe, 300mm
 Remarks: 1m
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.020	0.00	0.00	20600.00	412.00	0.00	0.00
Pipe fitter	md	0.165	0.00	0.00	19000.00	3135.00	0.00	0.00
Common labor	md	0.295	0.00	0.00	17300.00	5103.50	0.00	0.00
Subtotal				0.00		8650.50		0.00
Material cost								
RC pipe, 300mm	m	1.000	958.01	958.01	41074.75	41074.75	1338.75	1338.75
Portland cement	ton	0.036	4369.00	29.81	65360.00	392.16	17200.00	103.20
Aggregate, fine	m3	0.039	1276.00	11.48	12301.00	110.71	4101.00	36.91
Miscellaneous(3%)				29.98		1247.33		44.37
Subtotal				1029.29		42824.95		1523.22
Overhead(25%)				257.32		12868.86		380.81
Total				1286.61		64344.31		1904.03
Concrete, 5cm								
Form	m2	2.198	348.79	766.64	20133.67	44266.99	210.51	462.70
Reinforcement	kg	4.400	32.00	140.80	914.00	4021.60	111.00	488.40
Total				1197.51		51343.44		1673.44
Unit exclude OH(300mm pipe)				958.01		41074.75		1338.75

Item No.

Work: Concrete drain pipe, 600mm

Remarks: 1m

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.070	0.00	0.00	20600.00	1442.00	0.00	0.00
Pipe fitter	nd	0.247	0.00	0.00	19000.00	4693.00	0.00	0.00
Common labor	nd	0.716	0.00	0.00	17300.00	12386.80	0.00	0.00
Subtotal				0.00		18521.80		0.00
Material cost								
RC pipe, 600mm	m	1.000	1933.72	1933.72	79546.49	79546.49	2881.78	2881.78
Portland cement	ton	0.003	4369.00	14.91	65360.00	196.08	17200.00	51.60
Aggregate, fine	m ³	0.004	1276.00	5.10	12301.00	49.20	4101.00	16.40
Miscellaneous(3%)				58.61		2393.75		88.49
Subtotal				2012.34		82135.53		3038.28
Overhead(25%)				503.09		25176.83		759.57
Total				2515.43		125834.16		3797.85
Concrete, Form & Reinforcement								
Concrete, 6cm	m ³	0.124	5273.97	653.97	55542.70	6887.29	13133.37	1628.54
Form	m ²	4.145	348.79	1445.73	20139.67	83478.93	210.51	872.56
Reinforcement	kg	9.929	32.00	317.44	914.00	9066.88	111.00	1101.12
Total				2417.15		99433.11		3602.22
Unit price exclude OH				1933.72		79546.49		2881.78

Item No.
 Work: RC pipe, 800mm
 Remarks: 1m
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	m	0.100	0.00	0.00	20600.00	2060.00	0.00	0.00
Pipe fitter	m	0.420	0.00	0.00	19000.00	7980.00	0.00	0.00
Common labor	m	1.179	0.00	0.00	17300.00	20396.70	0.00	0.00
Subtotal				0.00		30436.70		0.00
Material cost								
RC pipe, 800mm	m	1.000	2721.66	2721.66	107694.19	107694.19	4283.82	4283.82
Portland cement	ton	0.015	4969.00	74.54	65360.00	980.40	17200.00	258.00
Aggregate, fine	m ³	0.019	1276.00	24.24	12301.00	233.72	4101.00	77.92
Miscellaneous (3%)				84.61		3267.25		138.59
Subtotal				2905.05		112175.56		4758.33
Overhead (25%)				726.26		35653.06		1189.58
Total				3631.32		178265.32		5947.91
Concrete, 7cm								
Form	m ²	5.464	348.79	1905.79	20139.67	110043.16	210.51	1150.23
Reinforcement	kg	15.280	32.00	488.96	914.00	13955.92	111.00	1696.08
Total				3402.08		134617.73		5354.78
Unit price exclude OH				2721.66		107694.19		4283.82

Item No.

Work: Perforated concrete pipe, 200mm

Remarks: In

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.020	0.00	0.00	20600.00	412.00	0.00	0.00
Pipe fitter	nd	9.165	0.00	0.00	19000.00	3135.00	0.00	0.00
Common labor	nd	0.295	0.00	0.00	17300.00	5103.50	0.00	0.00
Subtotal				0.00		8650.50		0.00
Material cost								
RC pipe, 200mm	m	1.000	669.37	669.37	30105.12	30105.12	860.32	860.32
Portland cement	ton	0.006	4969.00	29.81	65360.00	392.16	17260.00	103.20
Aggregate, fine	m ³	0.009	1276.00	11.48	12301.00	110.71	4101.00	36.91
Miscellaneous(3%)				21.32		918.24		30.01
Subtotal				731.99		31526.23		1030.44
Overhead(25%)				183.00		10044.18		257.61
Total				914.99		50220.31		1288.05
Concrete, Form, Reinforcement, Other(10%)								
Concrete, 4cm	m ³	0.030	5273.97	158.22	55542.70	1666.28	13133.37	394.00
Form	m ²	1.507	348.79	525.63	20139.67	30350.48	210.51	317.24
Reinforcement	kg	2.400	32.00	76.80	914.00	2193.60	111.00	266.40
Other(10%)				76.06		3421.04		97.76
Total				836.71		37631.40		1075.40
Unit price exclude OH				669.37		30105.12		860.32

Item No.
 Work:PVC pipe,100mm
 Remarks:ln
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.001	0.00	0.00	20600.00	20.60	0.00	0.00
Pipe fitter	nd	0.012	0.00	0.00	19000.00	228.00	0.00	0.00
Common labor	nd	0.023	0.00	0.00	17300.00	397.90	0.00	0.00
Subtotal				0.00		646.50		0.00
Material cost								
PVC pipe,100mm	m	1.000	931.00	931.00	1047.00	1047.00	0.00	0.00
Adhesive agent	kg	0.010	556.00	5.56	626.00	6.26	0.00	0.00
Miscellaneous(3%)				28.10		31.60		0.00
Subtotal				964.66		1084.86		0.00
Overhead(25%)				241.16		432.84		0.00
Total				1205.82		2164.20		0.00

Item No.
 Work:PVC pipe,75mm,weep hole
 Remarks:ln
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.001	0.00	0.00	20600.00	20.60	0.00	0.00
Pipe fitter	nd	0.012	0.00	0.00	19000.00	228.00	0.00	0.00
Common labor	nd	0.023	0.00	0.00	17300.00	397.90	0.00	0.00
Subtotal				0.00		646.50		0.00
Material cost								
PVC pipe,75mm	m	1.000	631.00	631.00	710.00	710.00	0.00	0.00
Adhesive agent	kg	0.005	556.00	2.78	626.00	3.13	0.00	0.00
Miscellaneous(3%)				19.01		21.39		0.00
Subtotal				652.79		734.52		0.00
Overhead(25%)				163.20		345.26		0.00
Total				815.99		1726.28		0.00

Item No.
 Work: PVC pipe, 50mm
 Remarks: 1m
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.001	0.00	0.00	20600.00	20.60	0.00	0.00
Pipe fitter	md	0.012	0.00	0.00	19000.00	228.00	0.00	0.00
Common labor	md	0.023	0.00	0.00	17300.00	397.90	0.00	0.00
Subtotal				0.00		646.50		0.00
Material cost								
PVC pipe, 50mm	m	1.000	321.00	321.00	361.00	361.00	0.00	0.00
Adhesive agent	kg	0.005	556.00	2.78	626.00	3.13	0.00	0.00
Miscellaneous(3%)				9.71		10.92		0.00
Subtotal				333.49		375.05		0.00
Overhead(25%)				83.37		255.39		0.00
Total				416.87		1276.94		0.00

Item No.
 Work: Steel pipe, 500mm
 Remarks: 1m
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.020	0.00	0.00	20600.00	412.00	0.00	0.00
Operator	nd	0.060	0.00	0.00	25600.00	1536.00	0.00	0.00
Rigger	nd	0.060	0.00	0.00	19000.00	1140.00	0.00	0.00
Skilled labor	nd	0.120	0.00	0.00	20900.00	2508.00	0.00	0.00
Subtotal				0.00		5596.00		0.00
Material cost								
Steel pipe, 500mm	m	1.000	10561.00	10561.00	11881.00	11881.00	0.00	0.00
Light oil	lit	1.400	4.00	5.60	353.00	494.20	1.00	1.40
Lubricant	lit	0.146	44.00	6.42	4150.00	605.90	500.00	73.00
Grease	kg	0.028	58.00	1.62	5395.00	151.06	650.00	18.20
Miscellaneous(3%)				317.24		393.96		2.78
Subtotal				10891.89		13526.12		95.38
Equipment cost								
Truck bed crane, 2.9t	hr	0.280	2167.00	608.76	8604.00	2409.12	0.00	0.00
Miscellaneous(5%)				30.34		120.46		0.00
Subtotal				637.10		2529.58		0.00
Overhead(25%)				2882.25		5412.93		23.84
Total				14411.23		27064.63		119.22
Unit Price(1 kg)				147.96		277.87		1.22

Item No.
 Work: Steel pipe, 200mm
 Remarks: 1a
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	0.030	0.00	0.00	20600.00	618.00	0.00	0.00
Pipe fitter	nd	0.218	0.00	0.00	19000.00	4142.00	0.00	0.00
Common labor	nd	0.335	0.00	0.00	17300.00	5795.50	0.00	0.00
Subtotal				0.00		10555.50		0.00
Material cost								
Steel pipe, 200mm	a	1.000	3274.00	3274.00	3683.00	3683.00	0.00	0.00
Miscellaneous(5%)				163.70		184.15		0.00
Subtotal				3437.70		3867.15		0.00
Overhead(25%)				859.43		3605.66		0.00
Total				4297.13		18028.31		0.00
Unit price(1kg), 30.1kg/a				142.75		598.95		0.00

Item No.
 Work: Steel pipe, 100mm
 Remarks: 1m
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.030	0.00	0.00	20600.00	618.00	0.00	0.00
Pipe fitter	md	0.218	0.00	0.00	19000.00	4142.00	0.00	0.00
Common labor	md	0.335	0.00	0.00	17300.00	5795.50	0.00	0.00
Subtotal				0.00		10555.50		0.00
Material cost								
Steel pipe, 100mm	m	1.000	1241.00	1241.00	1396.00	1396.00	0.00	0.00
Miscellaneous (5%)				62.05		69.80		0.00
Subtotal				1303.05		1465.80		0.00
Overhead (25%)				325.76		3005.33		0.00
Total				1628.81		15026.63		0.00
Unit Price, kg (12.2)				133.51		1231.69		0.00

Item No.

Work: Steel ladder, type A, H=1.2m

Remarks: 21.87kg

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
L-50*50*6	kg	3.367	36.00	121.21	467.00	1572.39	123.00	414.14
Steel plate, 150*150*6	kg	2.121	54.00	114.53	60.00	127.26	0.00	0.00
L-50*50*6	kg	0.886	36.00	31.90	467.00	413.76	123.00	108.98
L-50*50*6	kg	10.632	36.00	382.75	467.00	4965.14	123.00	1307.74
Round bar, 22mm	kg	4.864	25.00	121.60	323.00	1571.07	85.00	413.44
Miscellaneous(5%)				39.60		432.48		112.21
Subtotal				810.59		9082.11		2356.51
Install and weld, 50% LC	L.S.					13660.23		
Overhead(25%)				202.65		5685.59		589.13
Total				1013.24		28427.93		2945.64
Unit price(1kg)				46.33		1299.86		134.69

Item No.

Work: Perforated concrete pipe, 150mm

Remarks: 1m

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.020	0.00	0.00	20600.00	412.00	0.00	0.00
Pipe fitter	md	0.165	0.00	0.00	19000.00	3135.00	0.00	0.00
Common labor	md	0.295	0.00	0.00	17300.00	5103.50	0.00	0.00
Subtotal				0.00		8650.50		0.00
Material cost								
RC pipe, 150mm	m	1.000	531.63	531.63	23860.79	23860.79	685.92	685.92
Portland cement	ton	0.006	4969.00	29.81	65360.00	392.16	17200.00	103.20
Aggregate, fine	m3	0.009	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous(3%)				16.84		727.59		23.67
Subtotal				578.29		24980.54		812.79
Overhead(25%)				144.57		8407.76		203.20
Total				722.86		42038.80		1015.99
Concrete, 4cm	m3	0.024	5273.97	126.58	55542.70	1333.02	13133.37	315.20
Form	m2	1.193	348.79	416.11	20139.67	24026.63	210.51	251.14
Reinforcement	kg	1.920	32.00	61.44	914.00	1754.88	111.00	213.12
Other(10%)				60.41		2111.45		77.95
Total				664.53		29825.98		857.41
Unit price exclude OH				531.63		23860.79		685.92

Item No.
 Work: RC pipe, 1000mm
 Remarks: 10
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	ad	0.100	0.00	0.00	20600.00	2060.00	0.00	0.00
Pipe fitter	ad	0.420	0.00	0.00	19000.00	7980.00	0.00	0.00
Common labor	ad	1.179	0.00	0.00	17300.00	20396.70	0.00	0.00
Subtotal				0.00		30436.70		0.00
Material cost								
RC pipe, 1000mm	m	1.000	3597.07	3597.07	137266.80	137266.80	5932.25	5932.25
Portland cement	ton	0.015	4969.00	74.54	65360.00	980.40	17200.00	258.00
Aggregate, fine	m ³	0.019	1276.00	24.24	12301.00	233.72	4101.00	77.92
Miscellaneous(3%)				110.88		4154.43		188.05
Subtotal				3806.72		142635.35		6456.21
Overhead(25%)				951.68		43268.01		1614.05
Total				4758.41		216340.06		8070.27
Concrete, 8cm	m ³	0.272	5273.97	1434.52	55542.70	15107.61	13133.37	3572.28
Form	m ²	6.782	348.79	2365.49	20139.67	136587.24	210.51	1427.68
Reinforcement	kg	21.760	32.00	696.32	914.00	19888.64	111.00	2415.36
Total				4496.33		171583.50		7415.32
Unit price exclude OH				3597.07		137266.80		5932.25

Item No.

Work:Reinforcing bar handling

Remarks:1ton

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.025	0.00	0.00	20600.00	515.00	0.00	0.00
Operator	nd	0.100	0.00	0.00	25600.00	2560.00	0.00	0.00
Common labor	nd	0.200	0.00	0.00	17300.00	3460.00	0.00	0.00
Subtotal				0.00		6535.00		0.00
Material cost								
Light oil	lit	7.500	4.00	30.00	353.00	2647.50	1.00	7.50
Lubricant	lit	0.350	44.00	15.40	4150.00	1452.50	500.00	175.00
Grease	kg	0.075	58.00	4.35	5395.00	404.63	650.00	48.75
Miscellaneous(3%)				1.49		135.14		6.94
Subtotal				51.24		4639.76		238.19
Equipment cost								
Truck crane,30t	hr	0.500	5705.00	2852.50	22654.00	11327.00	0.00	0.00
Miscellaneous(5%)				142.63		566.35		0.00
Subtotal				2995.13		11893.35		0.00
Overhead(25%)				761.59		5767.03		59.55
Total				3807.96		28835.14		297.73

0 MISCELLANEOUS (2)

Work	Unit	** FC ** (Yen)	LC (S/.)	Duty, Tax (S/.)	** LC ** (S/.)	Total (S/.)	Total (US\$)
Ket rubble masonry, A, cut	m2	1695.57	33138.43	4693.92	37832.35	75982.68	33.77
Ket rubble masonry, B, embank	m2	2136.62	44617.68	6102.10	50719.78	98793.73	43.91
Stone pitching, A	m2	1317.91	26011.00	3812.88	29623.88	59276.86	26.35
Stone pitching, B	m2	424.52	11983.37	1266.45	13249.82	22801.52	10.13
Masonry/Stone pitching, quarry	m2	310.43	12324.20	997.49	13321.69	20306.37	9.03
Stone masonry	m2	483.72	19417.03	1554.56	20971.59	31855.29	14.16
Drill anchor bar hole	m	1198.05	3249.90	19.43	3269.33	30225.46	13.43
Anchor bar, 25mm	m	1354.36	7177.40	559.43	7736.83	38209.93	16.98
Gabion, 40*120cm	m3	6270.75	30023.19	2627.16	32650.35	173742.23	77.22
Turfing	m2	0.00	4125.25	0.00	4125.25	4125.25	1.83
Turfing and sodding	m2	3.05	4621.83	0.02	4621.85	4690.48	2.08
Concrete spray, with net, 100	m2	1605.01	15714.92	1702.48	17417.40	53530.13	23.79
	m3	16050.09	157149.19	17024.78	174173.97	535301.00	237.91
Dewatering, pump, 80mm	day	826.32	29764.04	122.36	29886.40	48478.60	21.55
Dewatering, pump, 100mm	day	1458.44	35503.26	205.79	35709.05	68523.95	30.46
Grouting in tunnel	m	2020.55	77778.64	296.64	78075.28	123537.66	54.91
Backfill grout	m3	6691.14	27247.43	3631.63	30879.06	181429.71	80.64
Pipe for grout hole	m	702.98	4811.15	0.00	4811.15	20628.20	9.17
Grout material	ton	7718.56	85638.06	22145.00	107783.06	281450.66	125.09
	kg	7.72	85.64	22.15	107.79	281.49	0.13

Item No.

Work: wet rubble masonry, type A, cut section

Remarks: 1m2

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount

1 Masonry	m2	1.000	310.43	310.43	12324.20	12324.20	997.49	997.49
2 Foundation concrete, E	m3	0.334	5120.76	174.11	53803.66	1829.32	12680.05	431.12
3 Backfill concrete, G	m3	0.150	4485.07	672.76	48951.59	7342.74	11532.70	1729.91
4 Free drainage	m3	0.300	1357.07	407.12	35320.75	10596.23	4332.84	1299.85
5 Cap concrete, H	m3	0.020	4551.50	91.03	50041.14	1000.92	11777.75	235.56
6 PVC pipe, 50mm, 0.5m, 0.25/m2	m	0.125	321.00	40.13	361.00	45.13	0.00	0.00
Unit price				1695.57		33138.43		4693.92

Item No.

Work: Wet rubble masonry, type B, embankment section

Remarks: 1m²

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)

1 Masonry	m ²	1.000	310.43	310.43	12324.20	12324.20	997.49	397.49
2 Foundation concrete, E	m ³	0.034	5120.76	174.11	53803.66	1829.32	12680.05	431.12
3 Gravel bedding	m ³	0.125	1357.07	169.63	35320.75	4415.09	4332.84	541.61
4 Backfill concrete, G	m ³	0.150	4485.07	672.76	48951.58	7342.74	11532.70	1729.91
5 Free drainage	m ³	0.500	1357.07	678.54	35320.75	17660.38	4332.84	2165.42
6 Cap concrete, H	m ³	0.020	4551.50	91.03	50041.14	1000.82	11777.75	235.56
7 PVC pipe, 50mm, 0.5m, 0.25/m ²	m	0.125	321.00	40.13	361.00	45.13	0.00	0.00
Unit price				2136.62		44617.68		6102.10

Item No.

Work: Stone pitching, type A

Remarks: 1m2

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)

1 Stone pitching, 30cm	m2	1.000	310.43	310.43	12324.20	12324.20	997.49	997.49
2 Backfill concrete, 6	m3	0.150	4485.07	672.76	48951.58	7342.74	11532.70	1729.91
3 Gravel bedding	m3	0.150	1357.07	203.56	35320.75	5298.11	4332.84	649.93
4 Cap concrete, H	m3	0.020	4551.50	91.03	50041.14	1000.82	11777.75	235.56
5 Keep hole	m	0.125	321.00	40.13	361.00	45.13	0.00	0.00
				1317.91		26011.00		3612.88

Item No.
 Work: Stone pitching, type B
 Remarks: 1m2
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
****				(Yen)		(S/.)		(S/.)
1 Stone pitching, 15cm	m2	1.000	155.22	155.22	6162.10	6162.10	498.75	498.75
2 Backfill concrete, 6	m3	0.000	4485.07	0.00	48951.58	0.00	11532.70	0.00
3 Gravel bedding	m3	0.150	1357.07	203.56	35320.75	5298.11	4332.84	649.93
4 Cap concrete, H	m3	0.010	4551.50	45.52	50041.14	500.41	11777.75	117.78
5 Keep hole	m	0.063	321.00	20.22	361.00	22.74	0.00	0.00
				424.52		11983.37		1266.45

Item No.
 Work: Masonry/Stone pitching
 Remarks: 1m², rubble stone from quarry
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	md	0.010	0.00	0.00	20600.00	206.00	0.00	0.00
Mason	md	0.200	0.00	0.00	19000.00	3800.00	0.00	0.00
Common labor	md	0.200	0.00	0.00	17300.00	3460.00	0.00	0.00
Subtotal				0.00		7466.00		0.00
Material cost								
Rubble stone***	m ³	0.300	704.00	211.20	6784.00	2935.20	2262.00	678.60
Gravel***	m ³	0.030	997.00	29.91	9615.00	288.45	3205.00	96.15
Miscellaneous(3%)				7.23		69.71		23.24
Subtotal				248.34		2393.36		797.99
Overhead(25%)				62.09		2464.94		199.50
Total				310.43		12324.20		997.49
Unit price(1m ³)				1034.76		41080.66		3324.97

Item No.
 Work: Stone masonry
 Remarks: 1m2
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	md	0.020	0.00	0.00	20600.00	412.00	0.00	0.00
Mason	md	0.198	0.00	0.00	19000.00	3762.00	0.00	0.00
Common labor	md	0.441	0.00	0.00	17300.00	7629.30	0.00	0.00
Subtotal				0.00		11803.30		0.00
Material cost								
Rubble***	m3	0.300	704.00	211.20	6784.00	2035.20	2262.00	678.60
Gravel***	m3	0.165	997.00	164.51	9615.00	1586.48	3205.00	528.83
Miscellaneous(3%)				11.27		108.65		36.22
Subtotal				386.98		3730.33		1243.65
Overhead(25%)				96.74		3683.41		310.91
Total				483.72		19417.03		1554.56

Item No.

Work: Drilling anchor bar hole

Remarks: 100m, drilling by crawler drill

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Ven)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	0.164	0.00	0.00	20600.00	3378.40	0.00	0.00
Operator	nd	0.820	0.00	0.00	25600.00	20992.00	0.00	0.00
Assist operator	nd	0.820	0.00	0.00	17900.00	14678.00	0.00	0.00
Common labor	nd	1.640	0.00	0.00	17300.00	28372.00	0.00	0.00
Subtotal				0.00		67420.40		0.00
Material cost								
Bit, 65mm	No.	1.000	43442.00	43442.00	48872.00	48872.00	0.00	0.00
Rod, 3m	No.	9.333	52430.00	17459.19	58984.00	19641.67	0.00	0.00
Sleeve	No.	0.200	10593.00	2118.60	11917.00	2383.40	0.00	0.00
Shank rod	No.	0.200	39590.00	7918.00	44539.00	8907.80	0.00	0.00
Light oil	lit	18.134	4.00	72.54	353.00	6401.30	1.00	18.13
Lubricant	lit	2.774	44.00	122.06	4150.00	11512.10	500.00	1387.00
Grease	kg	0.160	58.00	9.28	5395.00	863.20	650.00	104.00
Miscellaneous(3%)				2134.25		2957.44		45.27
Subtotal				73275.91		101538.92		1554.41
Equipment cost								
Crawler drill, 10m ³ /min	hr	5.333	2907.00	10703.33	8223.00	43853.26	0.00	0.00
Air compressor, 13.5m ³ /min	day	0.921	13143.00	10790.40	52186.00	42844.71	0.00	0.00
Miscellaneous(5%)				1074.69		4334.90		0.00
Subtotal				22568.42		91032.86		0.00
Overhead(25%)				23961.08		64998.05		388.60
Total				119805.42		324990.23		1943.01
Unit price				1198.05		3249.90		19.43

Item No.
 Work:Anchor bar,25mm
 Remarks:10a
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
1 Anchor bar,25mm,deformed**	ton	0.040	31914.55	1276.58	852286.50	34091.46	110467.50	4418.70
2 Drilling,65mm	m	10.600	1198.05	11980.50	3249.90	32499.00	19.43	194.30
3 Mortar,1:1****	m3	0.033	8269.48	272.89	149596.50	1936.68	28319.53	934.54
4 Injection(5%)				13.64		246.83		46.73
total				13543.62		71773.98		5594.27
Unit price				1354.36		7177.40		559.43

Item No.

Work: Gabion

Remarks: 1m, rectangular type, H=40cm, W=120cm, 0.48m³

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	0.027	0.00	0.00	20600.00	556.20	0.00	
Gabion worker	nd	0.053	0.00	0.00	19000.00	1007.00	0.00	
Common labor	nd	0.265	0.00	0.00	17300.00	4584.50	0.00	
Subtotal				0.00		6147.70	0.00	
Material cost								
Gabion, H=40cm	m	1.000	2933.00	2933.00	2287.00	2287.00	9.00	
Cobble stone***	m ³	0.433	704.00	304.83	6784.00	2937.47	2262.00	
Miscellaneous(3%)				70.13		156.73	29.38	
Subtotal				2407.97		5381.21	1008.83	
Overhead(25%)				601.99		2882.23	252.21	
Total				3009.96		14411.13	1261.04	
Unit price(1m ³)				6270.75		30023.19	2627.16	

Item No.
 Work: Turfing
 Remarks: 1m2
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.007	0.00	0.00	20600.00	144.20	0.00	0.00
Skilled labor	md	0.015	0.00	0.00	20900.00	313.50	0.00	0.00
Common labor	md	0.075	0.00	0.00	17300.00	1297.50	0.00	0.00
Subtotal				0.00		1755.20		0.00
Material cost								
Turf	m2	0.500	0.00	0.00	3000.00	1500.00	0.00	0.00
Fertilizer	kg	0.600	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous(3%)				0.00		45.00		0.00
Subtotal				0.00		1545.00		0.00
Overhead(25%)				0.00		825.05		0.00
Total				0.00		4125.25		0.00
Sod facing				3.05		496.58		0.02
Unit price(combined)				3.05		4621.83		0.02

Item No.

Work: Slope protection, Concrete spray.

Remarks: 1m², with net, t=100mm, 0.1m³

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	0.020	0.00	0.00	20690.00	412.00	0.00	0.00
Concrete worker	nd	0.030	0.00	0.00	19000.00	570.00	0.00	0.00
Operator	nd	0.030	0.00	0.00	25600.00	768.00	0.00	0.00
Reinforcement worker	nd	0.075	0.00	0.00	19000.00	1425.00	0.00	0.00
Skilled worker	nd	0.039	0.00	0.00	20900.00	815.10	0.00	0.00
Common labor	nd	0.039	0.00	0.00	17300.00	674.70	0.00	0.00
Subtotal				0.00		4664.80		0.00
Material cost								
Portland cement	ton	0.042	4969.00	208.70	65360.00	2745.12	17200.00	722.40
Aggregate, fine***	m ³	0.082	1276.00	104.63	12301.00	1008.65	4101.00	336.28
Aggregate, coarse***	m ³	0.055	1060.00	58.30	10216.00	561.38	3406.00	187.33
Lozenge shape net, 10mesh	m ²	1.290	337.00	404.40	379.00	454.80	0.00	0.00
PVC pipe, 40mm	m	0.040	235.00	9.40	264.00	10.56	0.00	0.00
Deformed bar, D13	kg	0.400	25.00	10.00	323.00	129.20	85.00	34.00
Light oil	lit	1.930	4.00	7.72	353.00	681.29	1.00	1.93
Lubricant	lit	0.078	44.00	3.43	4150.00	323.70	500.00	39.00
Gasoline	lit	0.071	6.00	0.43	501.00	35.57	1.00	0.07
Grease	kg	0.002	58.00	0.12	5395.00	10.79	650.00	1.30
Miscellaneous(3%)				24.21		178.85		39.67
Subtotal				831.34		6140.44		1361.98
Equipment cost								
Concrete spray gun, 5m ³	hr	0.100	1674.00	167.40	6426.00	642.60	0.00	0.00
Air compressor, 10.5m ³ /min.	day	0.014	11379.00	159.31	45183.00	632.56	0.00	0.00
Concrete mixer, 0.2m ³	day	0.014	5178.00	72.49	21215.00	297.91	0.00	0.00
Belt conveyor, 7m	day	0.029	1060.00	30.74	3603.00	104.49	0.00	0.00
Pick hammer	day	0.003	392.00	1.18	1969.00	5.91	0.00	0.00
Volute pump, 50mm	day	0.002	0.00	0.00	0.00	0.00	0.00	0.00
Miscellaneous(5%)				21.56		84.13		0.00
Subtotal				452.67		1766.69		0.00
Overhead(25%)				321.00		3142.98		340.50
Total				1605.01		15714.92		1702.48
Unit price				16050.09		157149.19		17024.78

Item No.

Work: Dewatering, waterpump 80mm

Remarks: 1day

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	0.005	0.00	0.00	20600.00	103.00	0.00	
Mechanic	nd	0.300	0.00	0.00	25700.00	7710.00	0.00	
Skilled labor	nd	0.090	0.00	0.00	26900.00	1381.00	0.00	
Common labor	nd	0.450	0.00	0.00	17300.00	7785.00	0.00	
Subtotal				0.00		17479.00	0.00	
Material cost								
Electric***	kwh	11.880	7.00	83.16	281.00	3338.28	8.00	
Miscellaneous(3%)				2.49		160.15	2.85	
Subtotal				85.65		3438.43	97.89	
Equipment cost								
Volute pump, 80mm	day	1.000	548.00	548.00	2756.00	2756.00	0.00	
Miscellaneous(5%)				27.40		137.80	0.00	
Subtotal				575.40		2893.80	0.00	
Overhead(25%)				165.26		5952.81	24.47	
Total				826.32		29764.94	122.36	

Item No.

Work: Dewatering, waterpump 100mm

Remarks: 1day

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	md	0.005	0.00	0.00	20600.00	103.00	0.00	
Mechanic	md	0.300	0.00	0.00	25700.00	7710.00	0.00	
Skilled labor	md	0.090	0.00	0.00	20900.00	1881.00	0.00	
Common labor	md	0.450	0.00	0.00	17300.00	7785.00	0.00	
Subtotal				0.00		17479.00	0.00	
Material cost								
Electric**	kwh	19.930	7.00	139.66	381.00	5614.38	8.00	
Miscellaneous(3%)				4.20		168.43	4.30	
Subtotal				144.06		5782.81	164.64	
Equipment cost								
Volute pump, 100mm	day	1.000	974.00	974.00	4896.00	4896.00	0.00	
Miscellaneous(5%)				48.70		244.80	0.00	
Subtotal				1022.70		5140.80	0.00	
Overhead(25%)				291.69		7100.65	41.16	
Total				1458.44		35503.26	205.79	

Item No.
 Grouting in tunnel
 Remarks:im
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.112	0.00	0.00	24700.00	2766.40	0.00	0.00
Grout worker	md	0.450	0.00	0.00	20200.00	9090.00	0.00	0.00
Mechanic	md	0.112	0.00	0.00	25700.00	2878.40	0.00	0.00
Electrician	md	0.112	0.00	0.00	25700.00	2878.40	0.00	0.00
Common labor	md	1.800	0.00	0.00	17300.00	31140.00	0.00	0.00
Subtotal				0.00		48753.20		0.00
Material cost								
Injection hose	m	0.017	1498.00	25.47	1685.00	28.65	0.00	0.00
Return hose	m	0.017	1498.00	25.47	1685.00	28.65	0.00	0.00
Injection branch	No.	0.003	50290.00	150.87	56576.00	169.73	0.00	0.00
Electric***	kwh	28.800	7.00	201.60	281.00	8092.80	8.90	230.40
Miscellaneous(3%)				12.10		249.59		6.91
Subtotal				415.50		8559.41		237.31
Equipment cost								
Grout pump,11kw	day	0.150	4657.00	698.55	19083.00	2862.45	0.00	0.00
Grout mixer,200 lit*2	day	0.150	1948.00	292.20	7980.00	1197.00	0.00	0.00
P-F gauge recorder,60 lit	day	0.150	1020.00	153.00	4950.00	607.50	0.00	0.00
Miscellaneous(5%)				57.19		233.35		0.00
Subtotal				1200.94		4900.30		0.00
Overhead(25%)				404.11		15555.73		59.33
Total				2020.55		77778.64		296.64

Item No.

Work: Backfill grout

Remarks: 1m3, (tunnel and shaft, air mortar)

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	md	0.009	0.00	0.00	24700.00	222.30	0.00	0.00
Grout worker A	md	0.097	0.00	0.00	20200.00	1959.40	0.00	0.00
Grout worker B	md	0.097	0.00	0.00	17300.00	1678.10	0.00	0.00
Common labor	md	0.049	0.00	0.00	17300.00	847.70	0.00	0.00
Subtotal				0.00		4707.50		0.00
Material cost								
Portland cement	ton	0.194	4969.00	963.99	17200.00	3336.80	0.00	0.00
Aggregate, fine****	m3	0.683	1276.00	871.51	12301.00	8401.58	4101.00	2800.98
Air bubble agent	kg	6.000	535.00	3210.00	602.00	3612.00	0.00	0.00
Electric***	kwh	2.463	7.00	17.24	281.00	692.10	8.00	19.70
Miscellaneous(3%)				151.88		481.27		84.62
Subtotal				5214.62		16523.76		2905.31
Equipment cost								
Grout mixer, 300 lit*2	day	0.019	2275.00	43.23	9322.00	177.12	0.00	0.00
Grout pump, 11kw	day	0.019	4657.00	88.48	19083.00	362.58	0.00	0.00
Miscellaneous(5%)				6.59		26.98		0.00
Subtotal				138.29		566.68		0.00
Overhead(25%)				1338.23		5449.49		726.33
Total				6691.14		27247.43		3631.63

Item No.

Work: Pipe for Grout hole

Remarks: 1m, 50mm, backfill grout

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.020	0.00	0.00	24700.00	494.00	0.00	0.00
Pipe fitter	nd	0.075	0.00	0.00	19000.00	1425.00	0.00	0.00
Common labor	nd	0.075	0.00	0.00	17300.00	1297.50	0.00	0.00
Subtotal				0.00		3216.50		0.00
Material cost								
Gas pipe, 50mm	m	1.000	546.00	546.00	614.00	614.00	0.00	0.00
Miscellaneous(3%)				16.38		18.42		0.00
Subtotal				562.38		632.42		0.00
Overhead(25%)				140.60		952.23		0.00
Total				702.98		4811.15		0.00

Item No.

Work: Grout material

Remarks: 1kg

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Material cost								
Portland cement	ton	1.000	4969.00	4969.00	65360.00	65360.00	17200.00	17200.00
Water reducing cement	kg	3.000	342.00	1026.00	385.00	1155.00	0.00	0.00
Miscellaneous(3%)				179.85		1995.45		516.00
Subtotal				6174.85		68510.45		17716.00
Overhead(25%)				1543.71		17127.61		4429.00
Total				7718.56		85638.06		22145.00
Unit price(1kg)				7.72		85.64		22.15

P MISCELLANEOUS (3)

		FC,Yen	LC,S/.	Tax,S/.	*LC,S/.*	Total,S/.	Total US\$
Pipe,backfill,50mm	m	702.98	4811.15	0.00	4811.15	20628.20	9.17
	kg	132.39	906.05	0.00	906.05	3884.83	1.73
Grout,cement	ton	7718.56	85638.06	22145.09	107783.06	281450.66	125.09
	kg	7.72	85.64	22.15	107.79	281.49	0.13
40kg/zack	zack	308.74	3425.52	885.80	4311.32	11257.97	5.60
Backfill grout,injection exclde cement	ton	35038.26	205618.40	40864.77	246483.17	1034844.02	459.93
Drain hole,mudstone,45mm	m	913.00	20166.64	50.54	20217.18	40759.68	18.12

Item No.

Work: Pipe for Grout hole

Remarks: 1m, 50mm backfill grout

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty, Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	md	0.020	0.00	0.00	24700.00	494.00	0.00	
Pipe fitter	md	0.075	0.00	0.00	19000.00	1425.00	0.00	
Common labor	mi	0.075	0.00	0.00	17300.00	1297.50	0.00	
Subtotal				0.00		3216.50	0.00	
Material cost								
Gas pipe, 50mm	r	1.300	546.00	546.00	614.00	614.00	0.00	
Miscellaneous(3%)				16.38		18.42	0.00	
Subtotal				562.38		632.42	0.00	
Overhead(25%)				140.60		962.23	0.00	
Total				702.98		4811.15	0.00	
Unit cost (1kg, 5.31kg/m)				132.39		906.05	0.00	

Item No.

Work: Grout material. Cement for grouting

Remarks: 1kg, 1 sack

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty, Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Material cost				(Yen)		(S/.)		(S/.)
Portland cement	ton	1.000	4969.00	4969.00	65360.00	65360.00	17200.00	17200.00
Water reducing cement	kg	3.000	342.00	1026.00	385.00	1155.00	0.00	0.00
Miscellaneous(3%)				179.85		1995.45		516.00
Subtotal				6174.85		68510.45		17716.00
Overhead(25%)				1543.71		17127.61		4429.00
Total				7718.56		85638.06		22145.00
Unit price(1kg)				7.72		85.64		22.15

Item No.

Work: Backfill grout

Remarks: 1m3, (tunnel and shaft, air mortar)

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty, Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.009	0.00	0.00	21700.00	222.30	0.00	0.00
Grout worker A	nd	0.097	0.00	0.00	20200.00	1959.40	0.00	0.00
Grout worker B	nd	0.097	0.00	0.00	19000.00	1843.00	0.00	0.00
Common labor	nd	0.049	0.00	0.00	17300.00	847.70	0.00	0.00
Subtotal				0.00		4872.40		0.00
Material cost								
Portland cement	ton	0.194	1969.00	963.99	65360.00	12679.84	17200.00	3336.80
Aggregate, fine***	m3	0.683	1276.00	871.51	12301.00	8401.58	4101.00	2800.98
Air bubble agent	kg	6.000	535.00	3210.00	602.00	3612.00	0.00	0.00
Electric**	kwh	2.463	7.00	17.24	281.00	692.10	8.00	19.70
Miscellaneous(3%)				151.86		761.57		184.72
Subtotal				5214.62		26147.09		6342.21
Equipment cost								
Grout mixer, 300 lit*2	day	0.019	2275.00	43.23	9322.00	177.12	0.00	0.00
Grout pump, 11kw	day	0.019	3919.00	169.46	35414.00	672.87	0.00	0.00
Miscellaneous(5%)				10.63		42.50		0.00
Subtotal				223.32		892.48		0.00
Overhead(25%)				1359.48		7977.99		1535.55
Total (unit price, 1m3)				6797.42		39889.97		7927.76

Unit price (cement .194t/m3)				35038.26		205618.40		40864.77

Item No. Chone Portoviejo
 Work: Drilling drain hole, boring machine
 Remarks: 45mm dia, 1.5m/hr, 25.5m/day, tunnel
 (8.5hr/10hr, 2shifts)

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty, Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
				(Yea)		(S/.)		(S/.)
Labor cost								
Foreman	md	1.000	0.00	0.00	24700.00	24700.00	0.00	0.00
Boring worker	md	4.000	0.00	0.00	20200.00	80800.00	0.00	0.00
Common	md	4.000	0.00	0.00	17300.00	69200.00	0.00	0.00
Mechanic	md	0.300	0.00	0.00	25700.00	7710.00	0.00	0.00
Electrician	md	0.300	0.00	0.00	25700.00	7710.00	0.00	0.00
Overtime(0.785)				0.00		149244.20		0.00
Subtotal				0.00		339364.20		0.00
Material cost								
Metal bit	no	2.250	3692.00	8307.00	4154.00	9346.50	0.00	0.00
Tube core barrel, single	No.	0.128	15943.00	2040.70	17936.00	2395.81	0.00	0.00
Boring rod, 40.5mm, 1.5m	No.	0.128	12412.00	1588.74	13964.00	1787.39	0.00	0.00
Electric***	kwh	125.120	7.00	875.84	281.00	35155.72	8.00	1000.96
Miscellaneous(3%)				384.37		1457.65		30.03
Subtotal				13196.65		50046.07		1030.99
Equipment cost								
Boring machine, 5.5kw	day	1.000	4778.00	4778.00	18973.00	18973.00	0.00	0.00
Turbine pump, 50cm	day	1.000	392.00	392.00	1969.00	1969.00	0.00	0.00
Miscellaneous(5%)				258.50		1047.10		0.00
Subtotal				5428.50		21989.10		0.00
Overhead(25%)				4656.29		102849.84		257.75
Total				23281.44		514249.22		1288.74
Unit Cost (1m)				913.00		20166.64		50.54

Q MISCELLANEOUS (4)

Item No.
 Work: Rubble concrete
 Remarks: 1m3
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (Yen)	Unit Cost	Amount	Unit Cost	Amount
Package 1							
Concrete E, 0.5m3			6102.76		61379.35		14054.57
Rubble, material			1304.00		12570.00		4190.00
Rubble, placing			260.80		2514.00		838.00
Incl. 25%, 0.5m3			1956.00		18855.00		6285.00
Unit price			4029.38		40117.18		10169.79
Package 2, Ceverino							
Concrete E, 0.5m3			5777.21		58245.87		13008.10
Rubble, material			1117.00		10770.00		3590.00
Rubble, placing			223.40		2154.00		718.00
Incl. 25%, 0.5m3			1675.50		16155.00		5385.00
Unit price			3726.36		37200.44		9196.55
Package 2, Poza Honda							
Concrete E, 0.5m3			5681.87		57329.66		12703.84
Rubble, material			1117.00		10770.00		3590.00
Rubble, placing			223.40		2154.00		718.00
Incl. 25%, 0.5m3			1675.50		16155.00		5385.00
Unit price			3678.69		36742.33		9044.42

Item No.
 Work: Contact grout
 Remarks: 1m3
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (Yen)	Unit Cost	Amount	Unit Cost	Amount
Pumping station Penstock line 1.15m3x 2t/m3=2,300kg	2300.000	43.00	98900.00	291.00	669300.00	63.00	144900.00
FC 990 \$							
LC 814,200 S/.							
Coaguillo inlet, Poza Honda inlet							
kg							
Grout	ton		35038.26		205618.40		40864.77
Grout cement	ton		7718.56		85638.06		22145.00
Total	ton		42756.82		291256.46		63009.77
Unit Price	kg		42.76		291.26		63.01

Item No.
 Work: Construction/removal of temp. cofferdam
 Remarks: 1m3
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (Yen)	Unit Cost	Amount	Unit Cost	Amount
Daule Peripa-Esperanza Membrillo outlet 2,375m3		530.00		4948.00		49.00	
L.S.			1258750.00		11751500.00		116375.00
FC 12,590 \$ LC 11,867,880 S/.							
Open channel 900m3		530.00		4948.00		49.00	
			477000.00		4453200.00		44100.00
FC 4,770 \$ LC 4,497,300 S/.							
La Esperanza-Poza Honda 400m3		530.00		4948.00		49.00	
			212000.00		1979200.00		19600.00
FC 2,120 \$ LC 1,938,800 S/.							
Poza Honda-Mancha Grande Outlet 200m3		530.00		4948.00		49.00	
			106000.00		989600.00		9800.00
FC 1,060 \$ LC 999,400 S/.							

Item No.

Work: Care of water during construction
in open air construction site

Remarks: 1m3

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency	
			Unit Cost	Amount (Yen)	Unit Cost	Amount
Daule Peripa-La Esperanza Conguillo, Membrillo	day	600.000	1458.00	35709.00		
4nos, 5 months				874800.00	21425400.00	
Severino pumping station	day	1350.000	1458.00	35709.00		
3nos, 15 months				1968300.00	48207150.00	
Head tank	day	300.000	1458.00	35709.00		
2nos, 5 months				437400.00	10712700.00	
Open channel	day	1200.000	1458.00	35709.00		
4nos, 10 months				1749600.00	42850800.00	
La Esperanza-Poza Honda	day	300.000	1458.00	35709.00		
2nos, 5 months				437400.00	10712700.00	
Poza Honda-Mancha Grande	day	300.000	1458.00	35709.00		
2nos, 5 months				437400.00	10712700.00	

Item No.
 Work: Measurement, MATH
 Remarks: 1m3
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency	
		Unit Cost	Amount (Yen)	Unit Cost	Amount
Horizontal convergence					
4,600nos					
Bolt, 5nos x 3700Yen x 234 section			4329000.00		9740250.00
Instrument			897000.00		
Staff					35100000.00
Overhead, 25%			1306500.00		11210063.00
Total			6532500.00		56050313.00
Unit Price	no		1396.00		11976.00
Diagonal convergence					
	no		1396.00		11976.00
Measurement of roof settlement					
Survey					24000.00
Overhead, 25%					6000.00
Unit Price					30000.00
Measurement of invert upheaval					
					30000.00
Steel measurement, rock bolt					
Rock bolt, 39nos x 55000yen			2145000.00		9652500.00
Instrument			76000.00		
Staff					7312500.00
Total incl 25% OH			2776250.00		21206250.00
Unit Price, 975nos			2850.00		21750.00
Stree measurement					
Cell 366,604Yen x 39nos			14297556.00		64339002.00
Instrument			468000.00		
Staff					7312500.00
Total incl 25% OH			18456945.00		89564377.00
Unit Price, 39nos			18930.00		91860.00
Steel support					
Strain gauge, 3nos x 38000Yen			114000.00		513000.00
Instrument(above)					
Staff					450000.00
Total incl 25% OH			142500.00		1293750.00
Unit Price, 60nos			2380.00		20060.00

Item No.

Work: Staff gauge

Remarks: 1m3

Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency	
		Unit Cost	Amount (Yen)	Unit Cost	Amount
Pumping Station					
Staff gauge, 25m, 200mm					
5m2 x 10300Yen=51500					
Manufacture, 51500					
CIF, 1.07			110210.00		247973.00
OH 25%					
Total			137763.00		309966.00
Severino Head Tank					
Staff gauge, 11.8m, 200mm					
4.72m2 x 10300Yen x 2					
CIF 1.07			104038.00		234086.00
OH 25%					
Total			130050.00		292610.00
Conguillo inlet					
Staff gauge, 20m, 100mm					
stainless pipe					
CIF			247598.00		1114191.00
OH 25%					
Total			309500.00		1392740.00
Poza Honda inlet					
Staff gauge, 22m, 100mm					
stainless pipe					
CIF			272358.00		1225611.00
OH 25%					
Total			340450.00		1532010.00

Item No.
 Work:Trash boom
 Remarks:1m3
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency	
		Unit Cost	Amount (Yen)	Unit Cost	Amount
Float,570mm dia.,1050mm			48150.00		
Main rope			23540.00		
Net			8196.00		
Weight			7758.00		
Rope,12mm			642.00		
Rope,6mm			235.00		
Net			10272.00		
Rope			10700.00		
Subtotal			109493.00		
				Install 10%	
Total incl.OH 25%			136866.00		307948.00
Unit Price 2m			68433.00		153974.00

Item No.

Work: Catch basin, Cess pit

Remarks: 1m3

Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Concrete	m3	0.360	5581.00	2009.00	58826.00	21177.00	13787.00	4963.00
Formwork	m2	3.680	349.00	1284.00	20139.00	74112.00	211.00	776.00
Reinforcement	ton	0.072	31989.00	2303.00	914170.00	65820.00	110725.00	7972.00
Gravel bedding	m3	0.064	1357.00	87.00	35321.00	2261.00	4333.00	277.00
				5683.00		163370.00		13988.00
Lid				1137.00		32674.00		2798.00
Catch basin, 1no.				6820.00		196044.00		16786.00
Cess pit								
Lid iron cover				1000.00		2250.00		
Cess pit, 1no.				6683.00		165620.00		13988.00

Item No.
 Work: Dredging work
 Remarks: 1m3
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Dredging								
Dredger, 3200 PS	day	34.000	190819.00	6487846.00	48840.00	1660560.00		
Anchor barge, D30 PS	day	34.000	2067.00	100878.00	7814.00	265676.00		
Connection boat	day	34.000	1452.00	49368.00	4351.00	147934.00		
Pontoon barge	day	34.000	34869.00	1185240.00	0.00	0.00		
Subtotal				7823332.00		2074170.00		
Delivery pipe								
Delivery pipe, water	no.	2.000	132515.00	265030.00	337340.00	674680.00		
Support, H=0m	m	50.000	147.00	7350.00	1923.00	96150.00		
Support, H=2m	m	50.000	806.00	40300.00	13626.00	681309.00		
Delivery pipe, land, H=0m	m	50.000	745.00	37250.00	4575.00	228750.00		
Delivery pipe, land, H=2m	m	50.000	767.00	38350.00	4803.00	240150.00		
Subtotal				387980.00		1921030.00		
Earthwork								
Earthwork	day	34.000	11115.00	377910.00	113649.00	3864066.00		
Maintain, pipe	day	34.000	0.00	0.00	34600.00	1176409.00		
Hauling, 2nd	m3	3000.000	254.00	762000.00	2635.00	7905009.00		
Dike	m3	375.000	325.00	121875.00	2679.00	1079625.00		
Subtotal				1361785.00		14625091.00		
Inland transp. asamble	L.S.			2477009.00		0.00		
Sea transport	L.S.			8236000.00		0.00		
Total				20246097.00		18020291.00		
Overhead(25%)				5061524.00		4505073.00		
Total				25307621.00		22525364.00		
Unit price(3000 m3)				8435.87		7508.45		
				84.36 (US\$)		7508.00 (S/.)		

R TUNNEL WORK (1)

Work	Unit	** FC ** (Yen)	LC (S/.)	Duty, Tax (S/.)	** LC ** (S/.)	Total (S/.)	Total (US\$)
Exc. enlargement of shaft	m3	3544.03	48818.87	3235.57	52054.44	131795.12	58.58
Form, 12m, Daule-Esperanze	m2	2337.68	5311.99	44.51	5356.50	57954.30	25.76
Steel support, H-125*125	ton	116708.12	131188.97	2935.73	134124.70	2760057.40	1226.69
Rock bolt, 25mm, 2m	m	2106.89	16246.06	41.19	16287.25	63692.28	28.31
Form, 12m, Esperanze-Poza	m2	2197.56	5032.72	47.05	5079.77	54524.87	24.23
Form, work adit	m2	1495.12	12268.27	82.15	12350.42	45990.62	20.44
Form, 12m, Poza-Mancha	m2	2509.28	5523.27	65.88	5589.15	62047.95	27.58
Winch, 150kw, incline only, 50m	m3	344.63	5566.60	59.17	5625.77	13381.30	5.95
Winch, 150kw, incline only, 100m	m3	344.63	5566.60	59.17	5625.77	13381.30	5.95
Winch, 150kw, incline only, 200m	m3	404.99	6550.88	69.53	6620.41	15732.69	6.99
Winch, 150kw, incline only, 350m	m3	469.78	7587.76	80.65	7668.41	18238.46	8.11
Winch, 150kw, incline only, 450m	m3	528.28	8532.91	90.69	8623.60	20509.90	9.12
Excav. machine, Daule-Espe, D/D	m3	3688.85	33942.93	303.44	34246.37	117245.50	52.11
Exc. machine, Espe-Poza, D/D	m3	3751.19	37181.42	375.74	37557.16	121958.94	54.20
Exca. machine, Poza-Mancha, D/D	m3	4625.35	46671.66	452.12	47123.78	151194.16	67.20
Exc. Adit, 50m, D/D, 4.5m3, incline	m3	2277.55	72115.73	2843.63	74959.36	126204.24	56.09
Exc. Adit, 100m, D/D, 4.5m3	m3	2277.55	72115.73	2843.63	74959.36	126204.24	56.09
Exc. Adit, 200m, D/D, 4.5m3	m3	2384.89	74016.62	2864.95	76881.57	130541.60	58.02
Exc. Adit, 350m, D/D, 4.5m3	m3	2486.87	75740.30	2881.43	78621.73	134576.31	59.81
Exc. Adit, 450m, D/D, 4.5m3	m3	2577.96	77130.43	2892.27	80022.70	138026.80	61.35
Exc. Adit, 100m, D/D, 3.0m3	m3	2320.38	73100.26	2854.41	75954.67	128163.22	56.96
Winch, 100kw, incline only, 100m	m3	390.77	7164.93	64.06	7228.99	16021.32	7.12
Winch, conc transp. 6m3, 50m	m3	204.41	2425.08	17.76	2442.84	7042.07	3.13
Winch, conc transp. 6m3, 100m	m3	205.56	2471.29	19.07	2490.36	7115.46	3.16
Winch, conc transp. 6m3, 200m	m3	208.46	2587.80	22.39	2610.19	7300.54	3.24
Winch, conc transp. 6m3, 350m	m3	212.59	2753.38	27.11	2780.49	7563.77	3.36
Winch, conc transp. 6m3, 450m	m3	215.38	2865.39	30.29	2895.68	7741.73	3.44
Winch, conc transp. 4.5m3, 100m	m3	201.96	2434.33	18.39	2452.72	6996.82	3.11
Cone lining, Daule-Espe	m3	1588.10	13096.76	8.39	13105.15	48837.40	21.71
Cone lining, Espe-Poza	m3	1588.10	13096.76	8.39	13105.15	48837.40	21.71
Cone lining, Poza-Mancha	m3	2209.29	18139.11	7.21	18146.32	67855.35	30.16
Conguillo work adit							
Inclined, 96m	m3	2277.55	72115.73	2843.63			
2nd haul, 2000m	m3	286.50	3150.08	32.44			
Total	m3	2564.05	75265.81	2876.07	78141.88	135833.01	60.37
El Guasmo work adit							
Inclined, 344m	m3	2486.87	75740.30	2881.43			
2nd haul, 1000m	m3	248.23	2743.52	27.45			
Total	m3	2735.10	78483.82	2908.88	81392.70	142932.45	63.53
Membrillo work adit							
Inclined, 35m	m3	2277.55	72115.73	2843.63			
2nd haul, 2000m	m3	286.50	3150.08	32.44			
Total	m3	2564.05	75265.81	2876.07	78141.88	135833.01	60.37
La Seca work adit							
Inclined, 448m	m3	2577.96	77130.43	2892.27			
2nd haul, 2000m	m3	286.50	3150.08	32.44			
Total	m3	2864.46	80280.51	2924.71	83205.22	147655.57	65.62

Work	Unit	** FC ** (Yen)	LC (S/.)	Duty, Tax (S/.)	** LC ** (S/.)	Total (S/.)	Total (US\$)
Los Cuyuyes work adit							
Inclined, 47m	m3	2277.55	72115.73	2843.63			
2nd haul, 2000m	m3	286.50	3159.08	32.44			
Total	m3	2564.05	75265.81	2876.07	78141.88	135833.01	60.37
Poza Honda work adit							
Inclined, 80m	m3	2320.38	73100.26	2854.41			
2nd haul, 2000m	m3	286.50	3159.08	32.44			
Total	m3	2606.88	76250.34	2886.85	79137.19	137791.99	61.24
Package 1, Daule-Esperanza, Tunnel Excavation							
1. From Conguillo adit							
0-166, 166-3000							
(36%)							
Tunnel excavation	m3	3688.85	33942.93	303.44			
Inclined haul (96m)	m3	344.69	5566.60	59.17			
2nd haul (2000m)	m3	286.50	3159.08	32.44			
Total	m3	4320.04	42659.61	395.05	43054.66	140255.56	62.34
2. From El Guasmo adit							
3000-5500							
(30%)							
Tunnel excavation	m3	3688.85	33942.93	303.44			
Inclined haul (344m)	m3	469.78	7587.76	80.65			
2nd haul (1000m)	m3	248.23	2743.52	27.45			
Total	m3	4406.86	44274.21	411.54	44685.75	143840.10	63.93
3. From membrillo adit							
5500-8170, 8170-8295							
(34%)							
Tunnel excavation	m3	3688.85	33942.93	303.44			
Inclined haul (35m)	m3	344.69	5566.60	59.17			
2nd haul (2000m)	m3	286.50	3159.08	32.44			
Total	m3	4320.04	42659.61	395.05	43054.66	140255.56	62.34
Average Unit Price (Daule-Esperanza)	m3	4346.09	43143.99	400.00	43543.99	141330.92	62.81
Package 2, Esperanza-Poza Honda, Tunnel excavation							
1. From Cana Dulce inlet							
0-4200							
(37%)							
Tunnel excavation	m3	3751.19	37181.42	375.74			
Inclined haul (Mill)	m3	0.00	0.00	0.00			
2nd haul (2000m)	m3	286.50	3159.08	32.44			
Total	m3	4037.69	40331.50	408.18	40739.68	131587.71	58.48
2. From La Seca adit							
4200-7500							
(29%)							
Tunnel excavation	m3	3751.19	37181.42	375.74			
Inclined haul (448m)	m3	528.28	8532.91	90.69			
2nd haul (2000m)	m3	286.50	3159.08	32.44			
Total	m3	4565.97	48864.41	498.87	49363.28	152097.61	67.60

Work	Unit	** FC ** (Yen)	LC (S/.)	Duty, Tax (S/.)	** LC ** (S/.)	Total (S/.)	Total (US\$)
3. From Los Cuyuyes adit							
8500-11244, 11244-11417							
(34%)							
Tunnel excavation	m3	3751.19	37181.42	375.54			
Inclined haul(47m)	m3	344.69	5566.60	59.17			
2nd haul(2000m)	m3	286.50	3150.08	32.44			
Total	m3	4382.38	45898.10	467.15	46365.25	144968.80	64.43
Average Unit Price	m3	4308.09	44698.69	454.53	45153.22	142085.15	63.15
(Esperanza-Poza Honda)							
Package 2, Poza Honda-Mancha Grande, Tunnel Excavation							
1. From Poza honda adit							
0-300, 300-2200							
(54%)							
Tunnel excavation	m3	4625.35	46671.66	452.12			
Inclined haul(80m)	m3	390.77	7164.93	64.06			
2nd haul(2000m)	m3	286.50	3150.08	32.44			
Total	m3	5302.62	56986.67	548.62	57535.29	176844.24	78.60
2. From Mancha Grande outlet							
2200-4695							
(46%)							
Tunnel excavation	m3	4625.35	46671.66	452.12			
Inclined haul(Null)	m3	0.00	0.00	0.00			
2nd haul(500m)	m3	228.38	2532.68	24.36			
Total	m3	4853.73	49204.34	476.48	49680.82	158889.75	70.62
Average Unit Price	m3	5096.13	53406.80	515.44	53922.23	168585.17	74.93
(Poza Honda-Mancha Grande)							
Package 1, Daule-Esperanza, Concrete Lining							
1. From Conguillo adit							
0-166, 166-3000							
(36%)							
Con. D, mix, haul, 200m	m3	5448.36	56490.96	14675.63			
Inclined haul(96m)	m3	204.41	2425.08	17.76			
Concrete lining, in tunnel	m3	1588.10	13096.76	8.39			
Total	m3	7240.87	72012.80	14701.78	86714.58	249634.16	110.95
2. From El Guasmo adit							
3000-5500							
(30%)							
Con. D, mix, haul, 6000m	m3	5912.09	61268.59	14726.56			
Inclined haul(344m)	m3	212.59	2753.38	27.11			
Concrete lining, in tunnel	m3	1588.10	13096.76	8.39			
Total	m3	7712.78	77118.73	14762.06	91880.79	265418.34	117.96
3. From membrillo adit							
5500-8170, 8170-8295							
(34%)							
Con. D, mix, haul, 200m	m3	5448.36	56490.96	14675.63			
Inclined haul(35m)	m3	204.41	2425.08	17.76			
Concrete lining, in tunnel	m3	1588.10	13096.76	8.39			
Total	m3	7240.87	72012.80	14701.78	86714.58	249634.16	110.95

Work	Unit	** FC ** (Yen)	LC (S/-)	Duty, Tax (S/-)	** LC ** (S/-)	Total (S/-)	Total (US\$)
Average Unit Price (Daule-Esperanza)	m3	7382.44	73544.58	14719.86	88264.44	254369.41	113.05

Package 2, Esperanza-Poza Honda, Concrete Lining

1. From Cana Dulce inlet

0-4200

(37%)

Con.D, mix, haul, 4000m	m3	5314.18	55397.97	13346.74			
Inclined haul (hill)	m3	0.00	0.00	0.00			
Concrete lining, in tunnel	m3	1588.10	13096.76	8.39			
Total	m3	6902.28	68494.73	13355.13	81849.86	237151.16	105.40

2. From La Seca adit

4200-7500

(29%)

Con.D, mix, haul, 4000m	m3	5314.18	55397.97	13346.74			
Inclined haul (448m)	m3	215.38	2865.39	30.29			
Concrete lining, in tunnel	m3	1588.10	13096.76	8.39			
Total	m3	7117.66	71360.12	13385.42	84745.54	244892.89	108.84

3. From Los Cuyuyes adit

4500-11244, 11244-11417

(34%)

Con.D, mix, haul, 3000m	m3	5209.84	54322.33	13335.29			
Inclined haul (47m)	m3	204.41	2425.08	17.76			
Concrete lining, in tunnel	m3	1588.10	13096.76	8.39			
Total	m3	7002.35	69844.17	13361.44	83205.61	240758.49	107.00

Average Unit Price (Esperanza-Poza Honda)	m3	6998.76	69784.50	13366.66	83150.56	240622.75	106.94
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Package 2, Poza Honda-Mancha Grande, concrete Lining

1. From Poza Honda adit

0-300, 300-2200

(54%)

Con.D, mix, haul, 9500m	m3	5734.65	59827.26	12906.22			
Inclined haul (80m)	m3	205.56	2471.29	19.07			
Concrete lining, in tunnel	m3	2209.29	18139.11	7.21			
Total	m3	8149.50	80437.66	12932.50	93370.16	276733.91	122.99

2. From Mancha Grande outlet

2200-4095

(46%)

Con.D, mix, haul, 200m	m3	4868.23	50900.65	12811.06			
Inclined haul (hill)	m3	0.00	0.00	0.00			
Concrete lining, in tunnel	m3	2209.29	18139.11	7.21			
Total	m3	7077.52	69039.76	12818.27	81858.03	241102.23	107.16

Average Unit Price (Poza Honda-Mancha Grande)	m3	7656.39	75194.63	12879.95	88074.58	260343.34	115.71
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Steel support, H-250, H-300	ton	94343.91	80792.17	1112.40			
Install, Handling, crane	ton	15231.84	137003.07	1190.94			
Total	ton	109575.75	217795.24	2303.34	220098.58	2685552.96	1193.58

Work	Unit	** FC ** (Yen)	LC (S/.)	Duty, Tax (S/.)	** LC ** (S/.)	Total (S/.)	Total (US\$)
Transportation, concrete in tunnel							
Inclined tunnel, 200m	m3	698.61	6779.61	0.00	6779.61	22498.34	10.00
Horizontl, 2000m	m3	208.46	2587.80	22.39	2610.19	7300.54	3.24
Total	m3	907.07	9367.41	22.39	9389.80	29798.88	13.24

Item No.
 Work: Enlargement of shaft
 Remarks: 310.7Cu3
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman, P	nd	1.390	30000.00	41700.00	0.00	0.00	0.00	0.00
Foreman	nd	5.560	0.00	0.00	24700.00	137332.00	0.00	0.00
Driller	nd	11.844	0.00	0.00	20200.00	239248.80	0.00	0.00
Skilled labor	nd	11.120	0.00	0.00	20900.00	232408.00	0.00	0.00
Common labor	nd	16.680	0.00	0.00	17300.00	288564.00	0.00	0.00
Mechanic	nd	5.560	0.00	0.00	25700.00	142892.00	0.00	0.00
Operator	nd	4.245	0.00	0.00	25600.00	108672.00	0.00	0.00
Assist operator	nd	4.425	0.00	0.00	17900.00	79207.50	0.00	0.00
Powder man	nd	2.000	0.00	0.00	17300.00	34600.00	0.00	0.00
Subtotal (FC*1.0, LC*1.755)				41700.00		2254319.88		0.00
Material cost								
Dynasite(2.0)***	kg	621.400	0.00	0.00	6343.00	5184340.20	810.00	503334.00
Detonator	No.	725.000	0.00	0.00	3863.00	2800673.00	375.00	271875.00
Cross bit, 36mm	No.	2.155	7383.30	15917.75	8306.00	17907.74	0.00	0.00
Taper rod, 1.5m	No.	1.540	8731.00	13445.74	9822.00	15125.88	0.00	0.00
Cross bit, crawler drill	No.	6.470	43442.00	281069.74	48872.00	316201.84	0.00	0.00
Rod	No.	3.698	52430.00	193886.14	58984.00	218122.83	0.00	0.00
Sleeve	No.	3.698	16593.00	39172.91	11917.00	44069.07	0.00	0.00
Shank rod	No.	1.849	39590.00	73201.91	44539.00	82352.31	0.00	0.00
Light oil	lit	252.480	4.00	1009.92	353.00	69125.44	1.00	252.48
Lubricant	lit	10.880	44.00	469.92	4150.00	44322.00	500.00	5340.00
Electric	kwh	0.970	7.00	6.79	281.00	272.57	8.00	7.76
Miscellaneous(3%)				18545.42		261375.46		23424.28
Subtotal				635726.25		9076890.63		804233.52
Equipment cost								
Jackhammer, 2.9m3/min	day	8.000	1000.00	8000.00	2063.00	16504.00	3.00	0.00
Air compressor, 21m3/min	day	1.485	22982.00	34128.27	91252.00	135509.22	0.00	0.00
Crawler drill, 7m3/min	hr	47.600	1482.00	70543.20	6074.00	289122.40	0.00	0.00
Vent fan, 300m3/min	day	2.780	3378.00	3390.84	11484.00	31925.52	0.00	0.00
Tractor shovel, 0.4m3	hr	17.600	1488.00	26188.80	5711.00	100513.60	0.00	0.00
Vent fan, 100m3/min	day	5.660	259.00	1440.04	879.00	4887.24	0.00	0.00
Backhoe, 0.3m3	hr	17.800	1479.00	26030.40	6735.00	118536.00	0.00	0.00
Truck crane, 30t	hr	3.000	5705.00	17115.00	22654.00	67962.00	0.00	0.00
Miscellaneous(5%)				9641.83		33248.00		0.00
Subtotal				202478.36		803207.98		0.00
Overhead(25%)				220226.16		3033694.62		201058.38
Total				1101130.78		15168023.11		1005291.90
Unit price				3544.03		48818.87		3235.57

Item No.

Work: Form in tunnel, sliding type 12m, Ecuador, Daulic-esperanza

Remarks: 107.4m², 3.7m dia. 12m.

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman F	wd	0.500	30000.00	15000.00	0.00	0.00	0.00	0.00
Foreman L	wd	0.500	0.00	0.00	24700.00	12350.00	0.00	0.00
Concrete worker	wd	3.000	0.00	0.00	19000.00	97000.00	0.00	0.00
Skilled labor	wd	3.000	0.00	0.00	20300.00	62700.00	0.00	0.00
Common labor	wd	3.000	0.00	0.00	17300.00	51900.00	0.00	0.00
Subtotal				15000.00		183950.00		0.00
Material cost								
Sliding form, telescopic	m ²	107.400	1677.00	180109.80	2176.00	233702.40	0.00	0.00
Timber	m ³	0.158	2089.00	330.06	135050.00	30817.90	33500.00	3713.00
Miscellaneous(3%)				5413.20		7935.61		111.39
Subtotal				185853.06		272455.91		3824.39
Overhead(25%)				50213.26		114161.48		956.10
Total				251056.32		570567.39		4780.49
Unit price				2337.63		5311.99		44.51

Item No.

Work: Steel support, headrace tunnel

Remarks: 1ton, H-125*125

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost including excavation cost								
Material cost								
H steel, 125*125	ton	0.285	62480.00	19516.80	48150.00	13722.75	0.00	
Steel plate, top	pc	2.000	750.00	1500.00	1181.00	2362.00	0.00	
Steel plate, bottom	pc	2.000	1000.00	2000.00	1575.00	3150.00	0.00	
Bolt, 19*50	pc	12.000	30.00	360.00	47.00	564.00	0.00	
Tie rod, 16mm*1.6m	pc	12.000	200.00	2400.00	315.00	3780.00	0.00	
Timber log, 60mm*1.6m, 12pc	m3	0.054	1067.00	57.62	9960.00	5378.40	12000.00	
Miscellaneous(3%)				775.03		868.71	19.44	
Subtotal				28609.45		29825.86	667.44	
Overhead(25%)				6652.36		7456.47	166.86	
Total				33261.81		37282.33	834.30	
Unit price				116708.12		131188.97	2935.73	

Item No.
 Work: Rock bolt in tunnel
 Remarks: 25mm, 2.00m*12=24
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.256	0.00	0.00	24700.00	6323.20	0.00	0.00
Driller	nd	1.280	0.00	0.00	20200.00	25856.00	0.00	0.00
Common labor	nd	2.560	0.00	0.00	17300.00	44285.00	0.00	0.00
Skilled labor	nd	2.560	0.00	0.00	20900.00	53504.00	0.00	0.00
Subtotal(*1.785)				0.00		231998.59		0.00
Material cost								
Bit, 36mm	No	0.250	7383.00	1845.75	8306.00	2076.50	0.00	0.00
Rod, 22mm	No	0.167	9737.00	1625.08	10954.00	1629.32	0.00	0.00
Mortar pack, 25mm, 100cc	No	12.000	621.00	7452.00	699.00	8338.00	0.00	0.00
Rock bolt, 2.0m	No	12.000	1552.00	18624.00	1746.00	20952.00	0.00	0.00
Mortar(2nd), dry	kg	60.960	64.00	3901.44	72.00	4389.12	0.00	0.00
Electric	kwh	99.984	7.00	699.89	281.00	28095.50	8.00	799.87
Miscellaneous(3%)				1024.47		1971.91		24.00
Subtotal				35173.63		67702.36		823.87
Equipment cost								
Stoper drill, 2.7m ³ /min	day	0.640	1660.00	1062.40	3426.00	2192.64	0.00	0.00
Air compressor, 7m ³ /min	day	0.640	7408.00	4741.12	29413.00	18924.32	0.00	0.00
Miscellaneous(20%)				1160.70		4203.39		0.00
Subtotal				6964.22		25220.35		0.00
Overhead(25%)				10534.46		81230.32		205.97
Total				52672.32		408151.62		1029.84
Unit price				2108.89		16246.06		41.19

Item No.

Work: Form in tunnel, sliding type 12m, Ecuador, Esperanza-Poza Honda

Remarks: 101.6x2, 3.5m dia. 12m.

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman F	md	0.500	30000.00	15000.00	0.00	0.00	0.00	0.00
Foreman L	md	0.500	0.00	0.00	24700.00	12350.00	0.00	0.00
Concrete worker	md	3.000	0.00	0.00	19000.00	57000.00	0.00	0.00
Skilled labor	md	3.000	0.00	0.00	20900.00	62700.00	0.00	0.00
Common labor	md	3.000	0.00	0.00	17300.00	51900.00	0.00	0.00
Subtotal				15000.00		183950.00		0.00
Material cost								
Sliding form, telescopic	m2	107.400	1476.00	158522.40	1748.00	187735.20	0.00	0.00
Timber	m3	0.158	2089.00	330.06	195050.00	30817.90	23500.00	3713.00
Miscellaneous(3%)				4765.57		6556.59		111.39
Subtotal				163618.04		225109.69		3824.39
Overhead(25%)				44654.51		102264.92		956.10
Total				223272.54		511324.62		4780.49
Unit price				2197.56		5032.72		47.05

Item No.

Work: Form in tunnel, 6m, assemble form, Work adit

Remarks: 61.68m², 4m, 2m wall, 1=6m, 100Nos use

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman F	nd	0.500	0.00	0.00	0.00	0.00	0.00	0.00
Foreman L	nd	2.000	0.00	0.00	24700.00	49400.00	0.00	0.00
Concrete worker	nd	8.000	0.00	0.00	19000.00	152000.00	0.00	0.00
Skilled labor	nd	8.000	0.00	0.00	20900.00	167200.00	0.00	0.00
Common labor	nd	4.000	0.00	0.00	17300.00	69200.00	0.00	0.00
Subtotal				0.00		437800.00		0.00
Material cost								
Sliding form	m ²	61.680	1035.00	63838.80	1888.00	116451.84	0.00	0.00
Timber	m ³	0.150	2089.00	313.35	195050.00	29257.50	23500.00	3525.00
Miscellaneous(15%)				9622.82		21856.40		528.75
Subtotal				73774.37		167565.74		4053.75
Overhead(25%)				18443.74		151341.44		1013.44
Total				92218.72		756707.18		5067.19
Unit price				1495.12		12268.27		82.15

Item No.

Work: Form in tunnel, sliding type 12m, Ecuador, Poza Honda-Rio Mancha

Remarks: 72.58x2.25m dia. 12m

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman P	wd	1.000	30000.00	30000.00	0.00	0.00	0.00	0.00
Foreman L	wd	1.000	0.00	0.00	24700.00	24700.00	0.00	0.00
Concrete worker	wd	2.000	0.00	0.00	19000.00	38000.00	0.00	0.00
Skilled labor	wd	2.000	0.00	0.00	20900.00	41800.00	0.00	0.00
Common labor	wd	2.000	0.00	0.00	17300.00	34600.00	0.00	0.00
Subtotal				30000.00		139100.00		0.00
Material cost								
Sliding form, telescopic	m2	72.560	1543.00	111960.28	2004.09	145410.24	0.00	0.00
Timber	m3	0.158	2089.00	330.66	195050.00	30817.90	23500.00	3713.00
Miscellaneous(3%)				3368.70		5286.84		111.39
Subtotal				115659.85		181514.98		3824.39
Overhead(25%)				36414.71		80153.75		956.10
Total				182073.56		400768.73		4780.49
Unit price				2509.28		5523.27		65.88

Item No.

Work: Muck haul, inclined tunnel, incline 50a

Remarks: 150kw winch, 4.5a3*2 nos muck car, 90m3

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	0.765	0.00	0.00	24700.00	18695.50	0.00	0.00
Operator	nd	1.530	0.00	0.00	25600.00	39158.00	0.00	0.00
Assist operator	nd	1.530	0.00	0.00	17900.00	27387.00	0.00	0.00
Common labor	nd	3.060	0.00	0.00	17300.00	52938.00	0.00	0.00
Subtotal				0.00		138388.50		0.00
Material cost								
Electric	kwh	517.050	7.00	3619.35	281.00	145291.05	6.00	4135.40
Miscellaneous(3%)				108.58		4358.73		124.09
Subtotal				3727.93		149649.78		4260.49
Equipment cost								
Winch, 150kw	day	0.353	52442.00	20085.29	280385.00	107387.16	0.00	0.00
Miscellaneous(5%)				1004.26		5363.37		0.00
Subtotal				21089.55		112756.33		0.00
Overhead(25%)				6204.37		100198.78		1065.12
Total				31021.85		500993.89		5325.62
Unit price				344.69		5566.60		59.17

Item No.

Work: Muck haul, inclined tunnel, incline 200m

Remarks: 15Ckw winch, 4.5m³ nos muck car, 30m³

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	md	0.933	0.00	0.00	24700.00	22394.10	0.00	0.00
Operator	md	1.806	0.00	0.00	25600.00	46233.60	0.00	0.00
Assist operator	md	1.806	0.00	0.00	17300.00	32327.40	0.00	0.00
Common labor	md	3.612	0.00	0.00	17300.00	62487.60	0.00	0.00
Subtotal				0.00		163352.70		0.00
Material cost								
Electric	kwh	607.500	7.00	4252.50	281.00	170707.50	8.00	4860.00
Miscellaneous(3%)				127.58		5121.23		145.80
Subtotal				4380.08		175828.73		5005.80
Equipment cost								
Winch, 150kw	day	0.450	52442.00	23596.90	280385.00	126173.25	0.00	0.00
Miscellaneous(5%)				1179.95		6368.66		0.00
Subtotal				24776.85		132481.91		0.00
Overhead(25%)				7289.73		117915.83		1251.45
Total				36448.65		569579.17		6257.25
Unit price				404.99		6550.88		69.53

Item No.

Work: Muck haul, inclined tunnel, incline 100a

Remarks: 150kw winch, 4.5x3x2 nos muck car, 90x3

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	nd	0.565	9.00	0.00	24700.00	13595.50	0.00	0.00
Operator	nd	1.530	0.00	0.00	25600.00	39168.00	0.00	0.00
Assist operator	nd	1.530	0.00	0.00	17900.00	27387.00	0.00	3.00
Common labor	nd	3.060	0.00	0.00	17300.00	52938.00	0.00	0.00
Subtotal				0.00		138388.50		0.00
Material cost								
Electric	kwh	517.050	7.00	3619.35	281.00	145291.05	8.00	4138.40
Miscellaneous(3%)				108.58		4358.73		124.09
Subtotal				3727.93		149649.78		4260.49
Equipment cost								
Winch, 150kw	day	0.383	52442.00	20085.29	280385.00	107387.46	0.00	0.00
Miscellaneous(5%)				1004.26		5369.37		0.00
Subtotal				21089.55		112756.83		0.00
Overhead(25%)				6204.37		100198.78		1065.12
Total				31021.85		503993.89		5325.62
Unit price				344.89		5556.60		59.17

Item No.

Work: Suck haul, inclined tunnel, incline 350m

Remarks: 150kw winch, 4.5x3x2 nos suck car, 30m³

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	1.042	0.00	0.00	24700.00	25762.10	0.00	0.00
Operator	nd	2.086	0.00	0.00	25600.00	53401.80	0.00	0.00
Assist operator	nd	2.086	0.00	0.00	17300.00	37339.40	0.00	0.00
Common labor	nd	4.172	0.00	0.00	17300.00	72175.80	0.00	0.00
Subtotal				0.00		188678.70		0.00
Material cost								
Electric	kwh	704.700	7.00	4932.90	281.00	196020.70	8.00	5637.60
Miscellaneous(3%)				147.29		5940.62		169.13
Subtotal				5080.89		203961.32		5806.73
Equipment cost								
Winch, 150kw	day	9.522	52442.00	27374.72	269385.00	146360.97	0.00	0.00
Miscellaneous(5%)				1368.74		7318.65		0.00
Subtotal				28743.46		153679.62		0.00
Overhead(25%)				8456.09		136573.76		1451.65
Total				42280.43		682893.80		7258.41
Unit price				169.78		7587.76		80.65

Item No.

Work: Huck haul, inclined tunnel, incline 450m

Remarks: 150kw winch, 4.5m³*2 nos truck car, 20m³

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	ad	1.173	0.00	0.00	24700.00	23973.10	0.00	0.00
Operator	ad	2.346	0.00	0.00	35600.00	60957.20	0.00	0.00
Assist operator	ad	2.346	0.00	0.00	17900.00	41993.49	0.00	0.00
Common labor	ad	4.892	0.00	0.00	17300.00	81171.60	0.00	0.00
Subtotal				0.00		212195.70		0.00
Material cost								
Electric	kwh	792.450	7.00	5547.15	281.00	222678.45	8.00	6339.60
Miscellaneous(3%)				166.41		6680.35		190.19
Subtotal				5713.56		229358.80		6529.79
Equipment cost								
Winch, 150kw	day	0.587	52442.00	30783.45	280385.00	164586.00	0.00	0.00
Miscellaneous(5%)				1539.17		8329.30		0.00
Subtotal				32322.63		172815.29		0.00
Overhead(25%)				9509.05		153592.45		1632.45
Total				47545.24		767862.25		8162.24
Unit price				528.28		8532.91		90.69

Item No.

Work: Muck haul, inclined tunnel, incline 100m

Remarks: 100kw winch, 3.0m³ nos muck car, 57m³

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	md	0.926	3.00	0.00	24700.00	22872.20	0.00	0.00
Operator	md	1.852	0.00	0.00	25600.00	47411.20	0.00	0.00
Assist operator	md	1.852	0.00	0.00	17900.00	33150.80	0.00	0.00
Common labor	md	3.704	0.00	0.00	17300.00	64079.20	0.00	0.00
Subtotal				0.00		157513.40		0.00
Material cost								
Electric	kwh	416.700	7.00	2916.90	281.00	117092.70	8.00	3333.60
Miscellaneous(3%)				87.51		3512.76		100.01
Subtotal				3004.41		120605.48		3433.61
Equipment cost								
Winch, 100kw	day	0.463	36904.00	17086.55	197308.00	31353.60	0.00	0.00
Miscellaneous(5%)				854.33		4567.68		0.00
Subtotal				17940.88		35921.28		0.00
Overhead(25%)				5236.32		96010.04		858.40
Total				26181.61		480059.21		4292.01
Unit price				390.77		7164.93		64.06

Item No.***Tunnel machine,D/D.Mud stone
 Work:Tunnel excavation,tunnel machine,Daule Peripa-La Esperanza
 Remarks:105.0m3,1500m,18.624m2*5.64m/day=105.0m3/day
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman,F	md	0.500	30000.00	15000.00	0.00	0.00	0.00	0.00
Foreman,L	md	4.000	0.00	0.00	24700.00	98830.00	0.00	0.00
Mechanic	md	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Electrician	md	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Skilled labor	md	4.000	0.00	0.00	20900.00	83600.00	0.00	0.00
Common labor	md	12.000	0.00	0.00	17300.00	207600.00	0.00	0.00
Powder operator	md	0.000	0.00	0.00	17300.00	0.00	0.00	0.00
Tunnel worker	md	0.000	0.00	0.00	20200.00	0.00	0.00	0.00
Operator	md	4.000	0.00	0.00	25600.00	102400.00	0.00	0.00
Assist operator	md	4.000	0.00	0.00	17300.00	71600.00	0.00	0.00
Subtotal(F *1.0,L *1.785)				15000.00		1190238.00		0.00
Material cost								
Dynamite***	kg	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Insert bit,22mm,i.7m	No	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Detonator,delay	No	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Consumer bit,etc.	m3	105.000	200.00	21000.00	0.00	0.00	0.00	0.00
Gas pipe,65mm	m	1.410	769.00	1071.80	855.00	1205.55	0.00	0.00
Timber square	m3	0.212	1244.00	263.73	116200.00	24634.40	14000.00	2968.00
Vent pipe,500mm	m	5.840	1391.00	7845.34	1585.00	8826.60	0.00	0.00
Galva pipe,150mm	m	1.410	3724.00	5250.84	4190.00	5907.90	0.00	0.00
Galva pipe,100mm	m	1.410	2119.00	2937.79	2384.00	3361.44	0.00	0.00
Electric	kwh	1949.100	7.00	13643.70	281.00	547697.10	8.00	15592.80
Light oil	lit	423.900	4.00	1695.60	353.00	149636.70	1.00	423.90
lubricant	lit	11.304	44.00	497.38	4150.00	46911.60	500.00	5652.00
Grease	kg	0.169	58.00	9.80	5395.00	911.76	650.00	109.85
Miscellaneous(3%)				1627.97		23672.79		742.40
Subtotal				55893.65		812765.84		25488.95
Equipment cost								
Leg drill,2.7m3/min	day	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Tunnel machine,65 type	hr	5.091	30233.00	153916.20	97896.00	493388.54	0.00	0.00
Pick hammer,7.5kg	day	4.000	181.00	724.00	373.00	1492.00	0.00	0.00
Muck loader,rail,0.4m3	hr	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Guide shell	day	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Muck car,4.5m3	day	10.000	2747.00	27470.00	11907.00	119070.00	0.00	0.00
Locomotive,8t	hr	2.000	5666.00	11332.00	32585.00	65170.00	0.00	0.00
Rail,30kg/s.	day	0.103	181.00	18.61	489.00	50.37	0.00	0.00
Vent fan,300	day	6.000	3378.00	20268.00	11484.00	63904.00	0.00	0.00
Vent fan,100	day	2.000	252.00	518.00	879.00	1758.00	0.00	0.00
Air compressor,16m3	day	1.000	13343.00	13343.00	52979.00	52979.00	0.00	0.00
Miscellaneous(5%)				11379.49		40390.60		0.00
Subtotal				238969.34		848202.50		0.00
Overhead(25%)				77465.75		712801.55		6372.24
Total				387328.73		3564007.92		31861.18
Unit price				3688.85		33942.93		303.44

Item No.***Tunnel machine,D/D,Kud stone
 Work:Tunnel excavation,blasting,Esperanza-Poza Honda
 Remarks:99.20m3,2000%,13.013m2*5.505m/day=99.20m3/day
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (\$/.)	Unit Cost	Amount (\$/.)
Labor cost								
Foreman,F	nd	0.500	30000.00	15000.00	0.00	0.00	0.00	0.00
Foreman,L	nd	4.000	0.00	0.00	24700.00	9800.00	0.00	0.00
Mechanic	nd	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Electrician	nd	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Skilled labor	nd	4.000	0.00	0.00	20900.00	83600.00	0.00	0.00
Common labor	nd	12.000	0.00	0.00	17300.00	207600.00	0.00	0.00
Powder operator	nd	0.000	0.00	0.00	17300.00	0.00	0.00	0.00
Tunnel worker	nd	0.000	0.00	0.00	20200.00	0.00	0.00	0.00
Operator	nd	4.000	0.00	0.00	25600.00	102400.00	0.00	0.00
Assist operator	nd	4.000	0.00	0.00	17900.00	71600.00	0.00	0.00
Subtotal(F *1.0,L *1.785)				15000.00		1190238.00		0.00
Material cost								
Dynamite***	kg	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Insert bit,22mm,1.7m	No	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Detonator, delay	No	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Consumer bit, etc.	m3	99.200	200.00	19840.00	0.00	0.00	0.00	0.00
Gas pipe,65mm	m	1.410	760.00	1071.60	855.00	1205.55	0.00	0.00
Timber square	m3	0.212	1244.00	263.73	116200.00	24634.40	14000.00	2968.00
Vent pipe,500mm	m	5.508	1391.00	7661.63	1585.00	8620.02	0.00	0.00
Galva pipe,150mm	m	1.110	3724.00	5250.84	4190.00	5907.90	0.00	0.00
Galva pipe,100mm	m	1.410	2119.00	2987.79	2384.00	3361.44	0.00	0.00
Electric	kwh	2474.600	7.00	17322.20	281.00	695362.60	8.00	19796.80
Light oil	lit	423.000	4.50	1695.60	353.00	149636.70	1.00	423.90
Lubricant	lit	11.304	44.00	497.38	4150.00	46911.60	500.00	5652.00
Grease	kg	0.169	58.00	9.80	5395.00	911.76	650.00	109.55
Miscellaneous(3%)				1698.02		28096.56		868.52
Subtotal				58298.58		964648.52		23319.07
Equipment cost								
Leg drill,2.7m3/min	day	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Tunnel machine,65 type	hr	4.500	30233.00	138769.47	37896.00	449342.64	0.00	0.00
Pick hammer,7.5kg	day	4.000	181.00	724.00	373.00	1422.00	0.00	0.00
Muck loader,rail,0.4m3	hr	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Guide shell	day	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Muck car,4.5m3	day	8.000	2747.00	21976.00	11907.00	95256.00	0.00	0.00
Locomotive,9t	hr	2.000	5666.00	11332.00	32585.00	65170.00	0.00	0.00
Rail,30kg/m	day	0.122	181.00	22.69	489.00	64.55	0.00	0.00
Vent fan,300	day	8.000	3378.00	27024.00	11484.00	91872.00	0.00	0.00
Vent fan,100	day	2.000	259.00	518.00	879.00	1758.00	0.00	0.00
Air compressor,10.5m3/min	day	1.000	13343.00	13343.00	52979.00	52979.00	0.00	0.00
Miscellaneous(5%)				10685.52		37896.71		0.00
Subtotal				224395.38		795830.90		0.00
Overhead(25%)				74423.62		737679.36		7454.77
Total				372118.08		3688396.58		37273.83
Unit price				3751.19		37181.42		375.74

Item No.*****Tunnel machine,D/D,Kud store
 Work:Tunnel excavation,Poza Honda-Mancha
 Remarks:64.4m3,12.174m2*5.292m/day=64.40m3/day,rail
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman,F	nd	0.500	30000.00	15000.00	0.00	0.00	0.00	0.00
Foreman,L	nd	2.000	0.00	0.00	24700.00	49400.00	0.00	0.00
Mechanic	nd	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Electrician	nd	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Skilled labor	nd	6.000	0.00	0.00	20900.00	125400.00	0.00	0.00
Common labor	nd	8.000	0.00	0.00	17300.00	138400.00	0.00	0.00
Powder operator	nd	0.000	0.00	0.00	17300.00	0.00	0.00	0.00
Tunnel worker	nd	0.500	0.00	0.00	20200.00	0.00	0.00	0.00
Operator	nd	4.000	0.00	0.00	25600.00	102400.00	0.00	0.00
Assist operator	nd	4.300	0.00	0.00	17900.00	71600.00	0.00	0.00
Subtotal(F *1.0,L *1.785)				15000.00		1953150.00		0.00
Material cost								
Dynamite***	kg	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Insert bit,22mm,1.7m	No	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Detonator,delay	No	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Consumer bit,etc.	m3	64.400	200.00	12880.00	0.00	0.00	0.00	0.00
Gas pipe,65mm	m	1.323	760.00	1005.48	855.00	1131.17	0.00	0.00
Timber square	m3	0.272	1244.00	338.37	116200.00	31606.40	14000.00	3808.00
Vent pipe,500mm	m	5.292	1391.00	7361.17	1565.00	8281.98	0.00	0.00
Galva pipe,150mm	m	1.323	3724.00	4926.85	4190.00	5543.37	0.00	0.00
Galva pipe,100mm	m	1.323	2119.00	2803.44	2384.00	3154.03	0.00	0.00
Electric	kwh	1577.600	7.00	11043.20	281.00	443305.60	8.00	12620.30
Light oil	lit	423.900	4.00	1695.60	353.00	149636.70	1.00	423.90
Lubricant	lit	11.304	44.00	497.38	4150.00	46911.50	500.00	5652.00
Grease	kg	0.169	58.00	9.80	5335.00	911.76	650.00	109.85
Miscellaneous(3%)				1276.84		29714.48		678.44
Subtotal				43838.13		711197.08		33292.93
Equipment cost								
Leg drill,2.7m3/min	day	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Tunnel machine	hr	3.675	30233.00	111106.28	97896.00	359767.86	0.00	0.00
Pick hammer,7.5kg	day	3.000	181.00	543.00	373.00	1119.00	0.00	0.00
Huck loader,rail,0.4m3	hr	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Guide shell	day	0.000	0.00	0.00	0.00	0.00	0.00	0.00
Huck car,3.0m3	day	8.000	2405.00	19240.00	10423.00	83384.00	0.00	0.00
Locomotive,6t	hr	2.000	4625.00	9250.00	26660.00	53200.00	0.00	0.00
Rail,30kg/m,	day	0.132	181.00	23.89	499.00	64.55	0.00	0.00
Vent fan,300	day	5.000	3378.00	16890.00	11484.00	57420.00	0.00	0.00
Vent fan,100	day	2.000	259.00	518.00	879.00	1758.00	0.00	0.00
Air compressor,16m3/min	day	1.000	13343.00	13343.00	52979.00	52979.00	0.00	0.00
Miscellaneous(5%)				6545.71		30484.62		0.00
Subtotal				179459.88		640176.37		0.00
Overhead(25%)				59574.50		601131.01		5823.25
Total				297872.50		3005655.06		29116.23
Unit price				4625.35		46671.86		452.12

Item No. 31***Work adit, inclined, Portoviejo, Mud stone
 Work: Tunnel excavation, work adit, blasting, D/D
 Remarks: 15.75m³, 50m (incline), 15.75m²*4.06m/day=63.95m³/day
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman, F	md	0.500	39000.00	15000.00	0.00	0.00	0.00	0.00
Foreman, L	md	2.000	0.00	0.00	24700.00	49400.00	0.00	0.00
Mechanic	md	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Electrician	md	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Skilled labor	md	6.000	0.00	0.00	20900.00	125400.00	0.00	0.00
Common labor	md	10.000	0.00	0.00	17300.00	173000.00	0.00	0.00
Powder operator	md	2.000	0.00	0.00	17300.00	34600.00	0.00	0.00
Tunnel worker	md	12.000	0.00	0.00	20200.00	242400.00	0.00	0.00
Operator	md	2.000	0.00	0.00	25600.00	51200.00	0.00	0.00
Assist operator	md	2.000	0.00	0.00	17900.00	35800.00	0.00	0.00
Subtotal(F *1.0, L *1.785)				15000.00		1454061.00		0.00
Material cost								
Dynamite	kg	63.945	0.00	0.00	8343.00	533493.14	810.00	51795.15
Insert bit, 22mm, 1.7m	No	0.725	14017.00	10162.33	15769.00	11432.53	0.00	0.00
Detonator, delay	No	185.900	0.00	0.00	3863.00	718131.70	375.00	69712.50
Gas pipe, 65mm	m	1.015	760.00	771.40	855.00	867.83	0.00	0.00
Timber square	m ³	0.031	1244.00	1.24	116209.00	116.20	14000.00	14.00
Vent pipe, 500mm	m	4.380	1291.00	5647.46	1565.00	6353.90	0.00	0.00
Galva pipe, 150mm	m	1.015	3724.00	3779.86	4190.00	4252.85	0.00	0.00
Galva pipe, 100mm	m	1.915	2119.00	2150.79	2384.00	2419.76	0.00	0.00
Electric	kwh	1692.000	7.00	11844.00	281.00	475452.00	8.00	13536.00
Light oil	lit	423.900	4.00	1695.60	353.00	149636.70	1.00	423.90
Lubricant	lit	11.302	44.00	497.29	4150.00	46903.30	500.00	5651.00
Grease	kg	0.169	58.00	9.80	5395.00	911.76	550.00	169.85
Miscellaneous(3%)				1096.79		58499.15		4237.28
Subtotal				37656.55		2008470.80		145479.98
Equipment cost								
Leg drill, 2.7m ³ /min	day	4.000	1308.00	5232.00	2699.00	10796.00	0.00	0.00
Pick hammer, 7.5kg	day	3.000	181.00	543.00	373.00	1119.00	0.00	0.00
Muck loader, rail, 0.4m ³	hr	1.507	4887.00	22025.71	20618.00	92925.33	0.00	0.00
Guide shell	day	4.000	2572.00	10288.00	5507.00	21228.00	0.00	0.00
Muck car, 4.5m ³	day	2.000	2747.00	5494.00	11907.00	23814.00	0.00	0.00
Winch, 150kw	hr	0.000	52442.00	0.00	280385.00	0.00	0.00	0.00
Rail, 30kg/m,	day	0.001	181.00	0.18	489.00	0.49	0.00	0.00
Vent fan, 300	day	1.000	3378.00	3378.00	11484.00	11484.00	0.00	0.00
Vent fan, 100	day	2.000	259.00	518.00	379.00	1758.00	0.00	0.00
Air compressor, 16m ³ /min	day	1.000	13343.00	13343.00	52979.00	52979.00	0.00	0.00
Miscellaneous(5%)				3041.09		10805.19		0.00
Subtotal				63862.98		226909.01		0.00
Overhead(25%)				29129.89		922360.20		36370.00
Total				145849.43		4611801.01		181849.98
Unit price				2277.55		72115.73		2843.63

Item No.*****Kork adit.inclined,Portoviejo,Mud stone
 Work:Tunnel excavation,kork adit,blasting,D/D
 Remarks:15.75m³,100m(incline),15.75m²*4.06m/day=63.95m³/day
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
			(Yen)	(S/.)	(S/.)	(S/.)	(S/.)	(S/.)
Labor cost								
Foreman,F	nd	0.500	30000.00	15000.00	0.00	0.00	0.00	0.00
Foreman,L	nd	2.000	0.00	9.00	24700.00	49400.00	0.00	0.00
Mechanic	nd	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Electrician	nd	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Skilled labor	nd	6.000	0.00	0.00	20900.00	125400.00	0.00	0.00
Common labor	nd	10.000	0.00	0.00	17300.00	173000.00	0.00	0.00
Powder operator	nd	2.000	0.00	0.00	17300.00	34600.00	0.00	0.00
Tunnel worker	nd	12.000	0.00	0.00	29200.00	242400.00	0.00	0.00
Operator	nd	2.000	0.00	0.00	25600.00	51200.00	0.00	0.00
Assist operator	nd	2.000	0.00	0.00	17300.00	35800.00	0.00	0.00
Subtotal(F \$1.0,L \$1.785)				15000.00		1454061.00		0.00
Material cost								
Dynamite	kg	63.945	0.00	0.00	8343.00	533493.14	810.00	51795.45
Insert bit,22mm,1.7m	No	0.725	14017.00	10162.33	15769.00	11432.53	0.00	0.00
Detonator,delay	No	185.000	0.00	0.00	3863.00	718131.70	375.00	69712.50
Gas pipe,65mm	m	1.015	760.00	771.40	855.00	867.83	0.00	0.00
Timber square	m ³	0.001	1244.00	1.24	116200.00	116.20	14000.00	14.00
Vent pipe,500mm	m	4.060	1391.00	5647.46	1585.00	6353.90	0.00	0.00
Galva pipe,150mm	m	1.015	3724.00	3779.85	4190.00	4252.85	0.00	0.00
Galva pipe,100mm	m	1.015	2119.00	2159.79	2384.00	2419.76	0.00	0.00
Electric	kwh	1692.000	7.00	11844.00	281.00	475452.30	8.00	13535.30
Light oil	lit	423.900	4.60	1695.60	353.00	149636.70	1.00	423.90
Lubricant	lit	11.302	44.00	497.29	4150.00	46903.30	500.00	5651.00
Grease	kg	0.169	58.00	9.80	5395.00	911.76	650.00	109.85
Miscellaneous(31)				1096.79		58499.15		4237.28
Subtotal				37656.56		2008470.80		145479.98
Equipment cost								
Log drill,2.7m ³ /min	day	4.000	1308.00	5232.00	2699.00	10736.00	0.00	0.00
Pick hammer,7.5kg	day	3.000	181.00	543.00	373.00	1119.00	0.00	0.00
Muck loader,rail,0.4m ³	hr	4.507	4887.00	22025.71	20618.00	92325.33	0.00	0.00
Guide shell	day	4.000	2572.00	10288.00	5397.00	21228.00	0.00	0.00
Muck car,4.5m ³	day	2.000	2747.00	5494.00	11907.00	23814.00	0.00	0.00
Winch,150kw	hr	0.000	52442.00	0.00	280385.00	0.00	0.00	0.00
Rail,30kg/m,	day	0.001	181.00	0.18	489.00	0.49	0.00	0.00
Vent fan,300	day	1.000	3375.00	3375.00	11484.00	11484.00	0.00	0.00
Vent fan,100	day	2.000	259.00	518.00	879.00	1758.00	0.00	0.00
Air compressor,16m ³ /min	day	1.000	13343.00	13343.00	52373.00	52373.00	0.00	0.00
Miscellaneous(51)				3041.09		10805.19		0.00
Subtotal				63862.98		226999.01		0.00
Overhead(25%)				29129.89		322360.20		36370.00
Total				145649.43		4611801.01		181849.98
Unit price				2277.55		72115.73		2843.63

Item No.*****Work adit, inclined, Portoviejo, Mud stone
 Work: Tunnel excavation, work adit, blasting, D/D
 Remarks: 15.75m³, 200m (incline), 15.75m² * 3.92m/day = 61.74m³/day
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman, F	nd	0.500	30000.00	15000.00	0.00	0.00	0.00	0.00
Foreman, L	nd	2.000	0.00	0.00	24700.00	49400.00	0.00	0.00
Mechanic	nd	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Electrician	nd	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Skilled labor	nd	6.000	0.00	0.00	20900.00	125400.00	0.00	0.00
Common labor	nd	10.000	0.00	0.00	17300.00	173000.00	0.00	0.00
Powder operator	nd	2.000	0.00	0.00	17300.00	34600.00	0.00	0.00
Tunnel worker	nd	12.000	0.00	0.00	20200.00	242400.00	0.00	0.00
Operator	nd	2.000	0.00	0.00	25600.00	51200.00	0.00	0.00
Assist operator	nd	2.000	0.00	0.00	17900.00	35800.00	0.00	0.00
Subtotal (F *1.0, L *1.785)				15000.00		1454061.00		0.00
Material cost								
Dynamite	kg	61.740	0.00	0.00	8343.00	515096.82	810.00	50009.49
Insert bit, 22mm, 1.7m	No	0.701	14617.00	9825.92	15769.00	11054.07	0.00	0.00
Detonator, delay	No	179.850	0.00	0.00	3863.00	694760.55	375.00	67443.75
Gas pipe, 65mm	m	0.980	760.00	744.80	855.00	837.90	0.00	0.00
Timber square	m ³	0.915	1244.00	18.66	118260.00	1743.00	14000.00	210.00
Vent pipe, 500mm	m	3.920	1391.00	5452.72	1565.00	6134.89	0.00	0.00
Galva pipe, 150mm	m	0.980	3724.00	3649.52	4190.00	4106.20	0.00	0.00
Galva pipe, 100mm	m	0.980	2119.00	2076.62	2394.00	2336.32	0.00	0.00
Electric	kwh	1692.000	7.00	11844.00	281.00	475452.00	8.00	13536.00
Light oil	lit	423.900	4.00	1695.60	353.00	149636.70	1.00	423.90
Lubricant	lit	11.302	44.00	497.29	4150.00	46903.30	500.00	5851.00
Grease	kg	0.169	58.00	9.80	5395.00	911.76	650.00	109.85
Miscellaneous (3%)				1074.45		57269.20		4121.52
Subtotal				36889.37		1966242.62		141505.42
Equipment cost								
Leg drill, 2.7m ³ /min	day	4.000	1308.00	5232.00	2599.00	10796.00	0.00	0.00
Pick hammer, 7.5kg	day	3.000	181.00	543.00	373.00	1119.00	0.00	0.00
Huck loader, rail, 0.4m ³	hr	4.905	4887.00	23970.74	20618.00	101131.29	0.00	0.00
Guide shell	day	4.000	2572.00	10288.00	5307.00	21228.00	0.00	0.00
Huck car, 4.5m ³	day	2.000	2747.00	5494.00	11907.00	23614.00	0.00	0.00
Winch, 150kw	hr	0.000	52442.00	0.00	280335.00	0.00	0.00	0.00
Rail, 30kg/m,	day	0.001	181.00	0.18	489.00	0.49	0.00	0.00
Vent fan, 300	day	1.000	3378.00	3378.00	11484.00	11484.00	0.00	0.00
Vent fan, 100	day	2.000	259.00	518.00	879.00	1753.00	0.00	0.00
Air compressor, 16m ³ /min	day	1.000	13343.00	13343.00	52979.00	52979.00	0.00	0.00
Miscellaneous (5%)				3138.35		11215.49		0.00
Subtotal				65905.26		235525.27		0.00
Overhead (25%)				29448.66		913957.22		35376.35
Total				147243.30		4569786.11		176881.77
Unit price				2384.89		74016.62		2864.95

Item No. *****
 Work: Tunnel excavation, work adit, blasting, D/D
 Remarks: 15.75m*3.350m (incline), 15.75m*2*3.80m/day=59.85m³/day
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman, F	md	0.500	30000.00	15000.00	0.00	0.00	0.00	0.00
Foreman, L	md	2.000	0.00	0.00	24700.00	49400.00	0.00	0.00
Mechanic	md	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Electrician	md	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Skilled labor	md	6.000	0.00	0.00	20900.00	125400.00	0.00	0.00
Common labor	md	10.000	0.00	0.00	17300.00	173000.00	0.00	0.00
Powder operator	md	2.000	0.00	0.00	17300.00	34600.00	0.00	0.00
Tunnel worker	md	12.000	0.00	0.00	20200.00	242400.00	0.00	0.00
Operator	md	2.000	0.00	0.00	25600.00	51200.00	0.00	0.00
Assist operator	md	2.000	0.00	0.00	17900.00	35800.00	0.00	0.00
Subtotal (F ¥1.0, L ¥1.785)				15000.00		1454061.00		0.00
Material cost								
Dynamite	kg	59.850	0.00	0.00	8343.00	499328.55	810.00	18478.50
Insert bit, 22mm, 1.7m	No	0.689	14017.00	9531.56	15769.00	10722.92	0.00	0.00
Detonator, delay	No	174.350	0.00	0.00	3863.00	673514.05	375.00	65381.25
Gas pipe, 65mm	m	0.950	760.00	722.00	855.00	819.25	0.00	0.00
Timber square	m ³	0.026	1244.00	32.34	116200.00	3021.20	14000.00	364.00
Vent pipe, 500mm	m	3.800	1391.00	5235.80	1565.00	5947.00	0.00	0.00
Galva pipe, 150mm	m	0.950	3724.00	3537.80	4190.00	3980.50	0.00	0.00
Galva pipe, 100mm	m	0.950	2119.00	2013.55	2384.00	2264.80	0.00	0.00
Electric	kwh	1692.000	7.00	11844.00	281.00	475452.00	8.00	13536.00
Light oil	lit	423.900	4.00	1695.60	353.00	149636.70	1.00	423.90
Lubricant	lit	11.302	44.00	497.29	4150.00	46903.30	500.00	5651.00
Grease	kg	0.169	58.00	9.80	5395.00	911.76	650.00	109.85
Miscellaneous (3%)				1055.08		56174.85		4018.34
Subtotal				36224.32		1926669.88		137962.84
Equipment cost								
Leg drill, 2.7m ³ /min	day	4.000	1308.00	5232.00	2699.00	10795.00	0.00	0.00
Pick hammer, 7.5kg	day	3.000	181.00	543.00	373.00	1119.00	0.00	0.00
Muck loader, rail, 0.4m ³	hr	5.293	4887.00	25818.92	20018.00	108924.89	0.00	0.00
Guide shell	day	4.000	2572.00	10288.00	5307.00	21228.00	0.00	0.00
Muck car, 4.5m ³	day	2.000	2747.00	5494.00	11907.00	23814.00	0.00	0.00
Winch, 150kw	hr	0.000	52442.00	0.00	280385.00	0.00	0.00	0.00
Rail, 30kg/m,	day	0.013	181.00	2.35	489.00	6.36	0.00	0.00
Vent fan, 300	day	1.000	3378.00	3378.00	11484.00	11484.00	0.00	0.00
Vent fan, 100	day	2.000	259.00	518.00	373.00	1758.00	0.00	0.00
Air compressor, 16m ³ /min	day	1.000	13343.00	13343.00	52979.00	52979.00	0.00	0.00
Miscellaneous (5%)				3230.82		11665.46		0.00
Subtotal				67847.19		243714.71		0.00
Overhead (25%)				29767.88		906611.40		34490.71
Total				149839.39		4533056.99		172453.54
Unit price				2486.87		75740.50		2881.43

Item No.*****Work adit, inclined, Portoviejo, Mud stone
 Work: Tunnel excavation, work adit, blasting, D/D
 Remarks: 15.75m³, 450m (incline), 15.75m² x 3.71m/day = 58.43m³/day
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost (\$/.)	Amount (\$/.)	Unit Cost	Amount (\$/.)
Labor cost								
Foreman, F	nd	0.500	30000.00	15000.00	0.00	0.00	0.00	0.00
Foreman, L	nd	2.000	0.00	0.00	24700.00	49400.00	0.00	0.00
Mechanic	nd	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Electrician	nd	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Skilled labor	nd	6.000	0.00	0.00	20900.00	125400.00	0.00	0.00
Common labor	nd	10.000	0.00	0.00	17300.00	173000.00	0.00	0.00
Powder operator	nd	2.000	0.00	0.00	17300.00	34600.00	0.00	0.00
Tunnel worker	nd	12.000	0.00	0.00	20200.00	242400.00	0.00	0.00
Operator	nd	2.000	0.00	0.00	25600.00	51200.00	0.00	0.00
Assist operator	nd	2.000	0.00	0.00	17900.00	35800.00	0.00	0.00
Subtotal (F \$1.0, L \$1.785)				15000.00		1454061.00		0.00
Material cost								
Dynamite	kg	58.433	0.00	0.00	8343.00	487506.52	810.00	47330.73
Insert bit, 22mm, 1.7m	No	0.662	14017.00	3279.25	15769.00	10439.08	0.00	0.00
Detonator, delay	No	169.950	0.00	0.00	3663.00	656516.85	375.00	63731.25
Gas pipe, 65mm	m	0.928	760.00	705.28	855.00	793.44	0.00	0.00
Timber square	m ³	0.034	1244.00	42.30	116200.00	3950.80	14000.00	476.00
Vent pipe, 500mm	m	3.710	1391.00	5160.61	1565.00	5806.15	0.00	0.00
Galva pipe, 150mm	m	0.928	3724.00	3455.87	4190.00	3888.32	0.00	0.00
Galva pipe, 100mm	m	0.928	2119.00	1966.43	2384.00	2212.35	0.00	0.00
Electric	kwh	1692.000	7.00	11844.00	281.00	475452.00	8.00	13536.00
Light oil	lit	423.900	4.00	1695.60	353.00	149636.70	1.00	423.90
Lubricant	lit	11.302	44.00	497.29	4150.00	46903.30	500.00	5651.00
Grease	kg	0.169	59.00	9.90	5335.00	911.76	850.00	109.85
Miscellaneous (3%)				1039.69		55320.52		3937.76
Subtotal				35696.13		1899337.78		135196.49
Equipment cost								
Leg drill, 2.7m ³ /min	day	4.000	1368.00	5232.00	2699.00	10796.00	0.00	0.00
Pick hammer, 7.5kg	day	3.000	181.00	543.00	573.00	1119.00	0.00	0.00
Muck loader, rail, 0.4m ³	hr	5.665	4897.00	27684.86	20618.00	116800.97	0.00	0.00
Guide shell	day	4.000	2572.00	10288.00	5307.00	21228.00	0.00	0.00
Muck car, 4.5m ³	day	2.000	2747.00	5494.00	11907.00	23814.00	0.00	0.00
Winch, 150kw	hr	0.000	52442.00	0.00	280385.00	0.00	0.00	0.00
Rail, 30kg/m,	day	0.016	181.00	2.99	489.00	7.82	0.00	0.00
Vent fan, 300	day	1.000	3378.00	3378.00	11484.00	11484.00	0.00	0.00
Vent fan, 160	day	2.000	259.00	518.00	879.00	1758.00	0.00	0.00
Air compressor, 16m ³ /min	day	1.000	13343.00	13343.00	52979.00	52979.00	0.00	0.00
Miscellaneous (5%)				3324.19		11999.24		0.00
Subtotal				69897.94		351986.13		0.00
Overhead (25%)				30126.62		901346.23		33799.12
Total				150630.08		4506731.14		168995.61
Unit price				2577.96		77130.43		2892.27

Item No.*****Kork adit, inclined, Portoviejo, 3x3, 100kw
 Work: Tunnel excavation, work adit, blasting, D/D, Mud stone
 Remarks: 15.75x3, 100m (incline), 15.75x2x3.98m/day=62.69x3/day
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
				(Yen)		(S/.)		(S/.)
Labor cost								
Foreman, F	nd	0.500	30000.00	15000.00	0.00	0.00	0.00	0.00
Foreman, L	nd	2.000	0.00	0.00	24700.00	49400.00	0.00	0.00
Mechanic	nd	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Electrician	nd	2.000	0.00	0.00	25700.00	51400.00	0.00	0.00
Skilled labor	nd	6.000	0.00	0.00	20900.00	125400.00	0.00	0.00
Common labor	nd	10.000	0.00	0.00	17300.00	173000.00	0.00	0.00
Powder operator	nd	2.000	0.00	0.00	17300.00	34600.00	0.00	0.00
Tunnel worker	nd	12.000	0.00	0.00	20200.00	242400.00	0.00	0.00
Operator	nd	2.000	0.00	0.00	25600.00	51200.00	0.00	0.00
Assist operator	nd	2.000	0.00	0.00	17900.00	35800.00	0.00	0.00
Subtotal(F *1.0, L *1.785)				15000.00		1454061.00		0.00
Material cost								
Dynamite	kg	62.685	0.00	0.00	8343.00	522980.96	310.00	50774.85
Insert bit, 22x, 1.7m	No	0.712	14017.00	9980.10	15769.00	11227.53	0.00	0.00
Detonator, delay	No	182.600	0.00	0.00	3863.00	705383.80	375.00	68475.00
Gas pipe, 65mm	m	0.995	760.00	756.20	855.00	850.73	0.00	0.00
Timber square	m3	0.001	1244.00	1.24	116200.00	116.20	14000.00	14.00
Vent pipe, 50Cm	m	3.980	1391.00	5536.18	1565.00	6228.70	0.00	0.00
Galva pipe, 150mm	m	0.995	3724.00	3705.38	4190.00	4169.05	0.00	0.00
Galva pipe, 100mm	m	0.995	2119.00	2108.41	2384.00	2372.08	0.00	0.00
Electric	kwh	1692.000	7.00	11844.00	281.00	475452.00	8.00	13536.00
Light oil	lit	423.900	4.00	1695.60	353.00	149636.70	1.00	423.90
Lubricant	lit	11.302	44.00	497.29	4150.00	46903.30	509.00	5651.00
Grease	kg	0.169	58.00	9.80	5395.00	911.76	659.00	109.85
Miscellaneous(3%)				1084.03		57786.96		4169.54
Subtotal				37218.23		1984019.78		143154.14
Equipment cost								
Leg drill, 2.7m3/min	day	4.000	1308.00	5232.00	2699.00	10796.00	0.00	0.00
Pick hammer, 7.5kg	day	3.000	181.00	543.00	373.00	1119.00	0.00	0.00
Muck loader, rail, 0.4m3	hr	4.703	4887.00	22983.56	20618.00	96966.45	0.00	0.00
Guide shell	day	4.000	2572.00	10288.00	5307.00	21228.00	0.00	0.00
Muck car, 3.0m3	day	2.000	2405.00	4810.00	10423.00	20846.00	0.00	0.00
Winch, 100kw	hr	0.000	36804.00	0.00	197368.00	0.00	6.00	0.00
Rail, 30kg/m,	day	0.016	181.00	2.90	489.00	7.82	0.00	0.00
Vent fan, 300	day	1.000	3378.00	3378.00	11484.00	11484.00	0.00	0.00
Vent fan, 100	day	2.000	259.00	518.00	879.00	1758.00	0.00	0.00
Air compressor, 16m3/min	day	1.000	13343.00	13343.00	52979.00	52979.00	0.00	0.00
Miscellaneous(5%)				3054.92		10859.21		0.00
Subtotal				64153.38		228043.49		0.00
Overhead(25%)				29092.90		916531.07		35788.53
Total				145464.51		4582655.34		178942.67
Unit price				2320.38		73100.26		2854.41

Item No.

Work: Cone transp, inclined tunnel, incline 50%

Remarks: 100kw winch, 6m3 bucket car, 70m3

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	0.250	0.00	0.00	24700.00	5175.00	0.00	0.00
Operator	nd	0.500	0.00	0.00	25600.00	12900.00	0.00	0.00
Assist operator	nd	0.500	0.00	0.00	17800.00	8950.00	0.00	0.00
Common labor	nd	1.000	0.00	0.00	17300.00	17300.00	0.00	0.00
Subtotal				0.00		45225.00		0.00
Material cost								
Electric	kwh	120.690	7.00	844.83	281.00	33913.69	6.00	665.52
Miscellaneous(3%)				25.34		1017.42		23.97
Subtotal				870.17		34931.31		689.49
Equipment cost								
Winch, 100kw	day	0.250	36904.00	9226.00	197308.00	49327.00	0.00	0.00
Bucket car	day	0.250	3388.00	847.00	14685.00	3671.25	0.00	0.00
Miscellaneous(5%)				503.65		2649.91		0.00
Subtotal				10576.65		55648.16		0.00
Overhead(25%)				2861.71		33951.12		248.62
Total				14308.53		169755.59		1243.11
Unit price				204.41		2425.08		17.76

Item No.

Work: Conc transp, inclined tunnel, incline 100a

Remarks: 100kw winch, 6m³ bucket car, 70m³

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	0.250	0.00	0.00	24700.00	6175.00	0.00	0.00
Operator	nd	0.500	0.00	0.00	25600.00	12800.00	0.00	0.00
Assist operator	nd	0.500	0.00	0.00	17900.00	8950.00	0.00	0.00
Common labor	nd	1.000	0.00	0.00	17300.00	17300.00	0.00	0.00
Subtotal				0.00		45225.00		0.00
Material cost								
Electric	kwh	129.630	7.00	907.41	281.00	36426.03	8.00	1037.04
Miscellaneous(3%)				27.22		1092.78		31.11
Subtotal				934.63		37518.81		1068.15
Equipment cost								
Winch, 100kw	day	0.250	36904.00	9226.00	197308.00	49327.00	0.00	0.00
Bucket car	day	0.250	3388.00	847.00	14685.00	3671.25	0.00	0.00
Miscellaneous(5%)				503.65		2949.91		0.00
Subtotal				10576.65		55648.16		0.00
Overhead(25%)				2877.82		34597.99		267.04
Total				14389.10		172983.97		1335.19
Unit price				205.56		2471.23		19.07

Item No.

Work: Conc transp, inclined tunnel, incline 200m

Remarks: 100kw winch, 6m³ bucket car, 70m³

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	0.250	0.00	0.00	24700.00	6175.00	0.00	0.00
Operator	nd	0.500	0.00	0.00	25600.00	12800.00	0.00	0.00
Assist operator	nd	0.500	0.00	0.00	17800.00	8250.00	0.00	0.00
Common labor	nd	1.000	0.00	0.00	17300.00	17300.00	0.00	0.00
Subtotal				0.00		45225.00		0.00
Material cost								
Electric	kwh	152.173	7.00	1065.21	281.00	42760.61	8.00	1217.38
Miscellaneous(31)				31.96		1282.82		36.52
Subtotal				1097.17		44043.43		1253.91
Equipment cost								
Winch, 100kw	day	0.250	36904.00	9226.00	197308.00	49327.00	0.00	0.00
Bucket car	day	0.250	3388.00	847.00	14685.00	3571.25	0.00	0.00
Miscellaneous(51)				503.65		2649.91		0.00
Subtotal				10576.65		55648.16		0.00
Overhead(251)				2918.45		36229.15		313.48
Total				14592.27		181145.74		1567.38
Unit price				208.46		2587.80		22.39

Item No.

Work: Conc transp, inclined tunnel, incline 350m

Remarks: 100kw winch, 6m³ bucket car, 70m³

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	0.250	0.00	0.00	24700.00	6175.00	0.00	0.00
Operator	nd	0.500	0.00	0.00	25600.00	12800.00	0.00	0.00
Assist operator	nd	0.500	0.00	0.00	17900.00	8950.00	0.00	0.00
Common labor	sd	1.000	0.00	0.00	17300.00	17300.00	0.00	0.00
Subtotal				0.00		45225.00		0.00
Material cost								
Electric	kwh	184.211	7.00	1289.48	281.00	51763.29	8.00	1473.69
Miscellaneous(3%)				38.68		1552.90		44.21
Subtotal				1328.16		53316.19		1517.90
Equipment cost								
Winch, 100kw	day	0.250	36904.00	9226.00	197308.00	49327.00	0.00	0.00
Bucket car	day	0.250	3388.00	847.00	14685.00	3671.25	0.00	0.00
Miscellaneous(5%)				503.65		2649.91		0.00
Subtotal				10576.65		55648.16		0.00
Overhead(25%)				2976.20		38547.34		379.47
Total				14881.01		192735.69		1897.37
Unit price				212.59		2753.33		27.11

Item No.

Work: Conc transp, inclined tunnel, incline 450m

Remarks: 100kw winch, 5m³ bucket car, 70m³

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	md	0.250	0.00	0.00	24700.00	6175.00	0.00	0.00
Operator	md	0.500	0.00	0.00	25600.00	12800.00	0.00	0.00
Assist operator	md	0.500	0.00	0.00	17900.00	8950.00	0.00	0.00
Common labor	md	1.000	0.00	0.00	17300.00	17300.00	0.00	0.00
Subtotal				0.00		45225.00		0.00
Material cost								
Electric	kwh	205.832	7.00	1441.17	281.00	57852.84	8.00	1647.06
Miscellaneous(3%)				43.24		1735.59		49.41
Subtotal				1484.41		59588.43		1696.47
Equipment cost								
Winch, 100kw	day	0.250	36904.00	9226.00	197308.00	49327.00	0.00	0.00
Bucket car	day	0.250	3368.00	847.00	14685.00	3671.25	0.00	0.00
Miscellaneous(5%)				503.65		2649.91		0.00
Subtotal				10576.65		55845.16		0.00
Overhead(25%)				3015.26		40115.40		424.12
Total				15076.32		200576.99		2120.58
Unit price				215.38		2865.39		30.29

Item No.

Kork: Conc transp, inclined tunnel, incline 100m

Remarks: 100kw winch, 4.5x3 bucket car, 50x3

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	md	0.250	0.00	0.00	24500.00	6175.00	0.00	0.00
Operator	md	0.500	0.00	0.00	25600.00	12360.00	0.00	0.00
Assist operator	md	0.500	3.00	0.00	17900.00	8950.00	0.00	0.00
Common labor	md	1.000	0.00	0.00	17300.00	17300.00	0.00	0.00
Subtotal				0.00		45225.00		0.00
Material cost								
Electric	kwh	125.000	7.00	875.00	281.00	35125.00	8.00	1000.00
Miscellaneous(3%)				26.25		1053.75		30.00
Subtotal				901.25		36178.75		1030.00
Equipment cost								
Winch, 100kw	day	0.250	36904.00	9226.00	197308.00	49327.00	0.00	0.00
Bucket car	day	0.250	2747.00	686.75	11907.00	2976.75	0.00	0.00
Miscellaneous(5%)				495.64		2615.19		0.00
Subtotal				10408.39		54918.94		0.00
Overhead(25%)				2827.41		31080.67		257.50
Total				14137.05		170403.36		1287.50
Unit price				201.96		2434.33		18.39

Item No.

Work: Concrete lining, Daule-Esperanza

Remarks: 70m3/span, 1500m, D/D

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	0.500	0.00	0.00	24700.00	12350.00	0.00	0.00
Concrete worker	nd	2.000	0.00	0.00	19000.00	38000.00	0.00	0.00
Skilled labor	nd	1.000	0.00	0.00	20900.00	20900.00	0.00	0.00
Operator	nd	2.000	0.00	0.00	25800.00	51200.00	0.00	0.00
Assist operator	nd	2.000	0.00	0.00	17900.00	35800.00	0.00	0.00
Common labor	nd	1.000	0.00	0.00	17300.00	17300.00	0.00	0.00
Subtotal(FC*1.0, LC*1.785)				0.00		313356.75		0.00
Material cost								
Electrician	kwh	57.000	7.00	399.00	291.00	16017.00	8.00	456.00
Miscellaneous(3%)				11.97		480.51		13.68
Subtotal				410.97		16497.51		469.68
Equipment cost								
Locomotive, 6t	hr	8.000	4625.00	37000.00	26600.00	212800.00	0.00	0.00
Concrete placer, 6m3	hr	8.000	5461.00	43688.00	20199.00	161592.00	0.00	0.00
Vibrator, 60mm	day	4.000	656.00	2624.00	1772.00	7088.00	0.00	0.00
Form vibrator, 0.2kw	day	4.000	184.00	736.00	497.00	1988.00	0.00	0.00
Vent fan, 100m3	day	1.000	259.00	259.00	879.00	879.00	0.00	0.00
Miscellaneous(5%)				4215.35		19217.35		0.00
Subtotal				88522.35		403564.35		0.00
Overhead(25%)				22233.33		183354.55		117.42
Total				111166.65		916773.26		587.10
Unit price				1588.10		13096.76		8.39

Item No.

Work: Concrete lining, Espe-Poza

Remarks: 70m3/span, 2000m, D/D

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	0.500	0.00	0.00	24700.00	12350.00	3.00	0.00
Concrete worker	nd	2.000	0.00	0.00	19000.00	38000.00	0.00	0.00
Skilled labor	nd	1.000	0.00	0.00	20900.00	20900.00	0.00	0.00
Operator	nd	2.000	0.00	0.00	25600.00	51200.00	3.00	0.00
Assist operator	nd	2.000	0.00	0.00	17900.00	35800.00	0.00	0.00
Common labor	nd	1.000	0.00	0.00	17300.00	17300.00	0.00	0.00
Subtotal(FC*1.0, LC*1.785)				0.00		313356.75		0.00
Material cost								
Electrician	kwh	57.000	7.00	399.00	281.00	16017.00	8.00	456.00
Miscellaneous(3%)				11.97		480.51		13.68
Subtotal				410.97		16497.51		469.68
Equipment cost								
Locomotive, 6t	hr	8.000	4525.00	37000.00	26600.00	212800.00	0.00	0.00
Concrete placer, 6m3	hr	8.000	5461.00	43688.00	20199.00	161592.00	0.00	0.00
Vibrator, 60mm	day	4.000	656.00	2624.00	1772.00	7088.00	0.00	0.00
Form vibrator, 0.2kw	day	4.000	184.00	736.00	497.00	1988.00	0.00	0.00
Vent fan, 100m3	day	1.000	259.00	259.00	879.00	879.00	0.00	0.00
Miscellaneous(5%)				4215.35		19217.35		0.00
Subtotal				88522.35		403564.35		0.00
Overhead(25%)				22233.33		183354.65		117.42
Total				111166.65		916773.26		587.10
Unit price				1588.10		13036.76		8.39

Item No.

Work: Concrete lining, Poza-Mancha

Remarks: 50m³/span, 1000m, D/D

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	md	0.500	0.00	0.00	24700.00	12350.00	0.00	0.00
Concrete worker	md	2.000	0.00	0.00	19000.00	38000.00	0.00	0.00
Skilled labor	md	1.000	0.00	0.00	20900.00	20900.00	0.00	0.00
Operator	md	2.000	0.00	0.00	25600.00	51200.00	0.00	0.00
Assist operator	md	2.000	0.00	0.00	17900.00	35800.00	0.00	0.00
Common labor	md	1.000	0.00	0.00	17300.00	17300.00	0.00	0.00
Subtotal(PC*1.0, LC*1.785)				0.00		313358.75		0.00
Material cost								
Electrician	kwh	35.000	7.00	245.00	281.00	9835.00	8.00	280.50
Miscellaneous(3%)				7.35		235.05		8.40
Subtotal				252.35		10130.05		288.40
Equipment cost								
Locomotive, 6t	hr	8.000	4625.00	37000.00	26600.00	212800.00	0.00	0.00
Concrete placer, 4.5m ³	hr	8.000	5413.00	43304.00	20022.00	160176.00	0.00	0.00
Vibrator, 60mm	day	4.000	656.00	2524.00	1772.00	7088.00	0.00	0.00
Form vibrator, 0.2kw	day	4.000	184.00	736.00	497.00	1988.00	0.00	0.00
Vent fan, 100m ³	day	1.000	259.00	259.00	879.00	879.00	0.00	0.00
Miscellaneous(5%)				4196.15		19146.55		0.00
Subtotal				88119.15		402007.55		0.00
Overhead(25%)				22029.83		181391.09		72.10
Total				110464.38		906955.44		360.50
Unit price				2209.29		18139.11		7.21

Item No.

Work: Steel support, intake shaft

Remarks: 1ton, R-250*250

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost including excavation cost								
Material cost								
R steel, 250*250	ton	1.000	68480.00	68480.00	48150.00	48150.00	0.00	0.00
Steel plate	pc	2.000	750.00	1500.00	1181.00	2362.00	0.00	0.00
Bolt, 19*50	pc	14.000	30.00	420.00	47.00	858.00	0.00	0.00
Tie rod, 16mm*1.60m	pc	14.000	200.00	2800.00	315.00	4410.00	0.00	0.00
Timber log, 60mm*1.6m, 16pc	m3	0.072	1067.00	76.82	99600.00	7171.20	12000.00	864.00
Miscellaneous(3%)				2198.30		1882.54		25.92
Subtotal				75475.13		64633.74		889.92
Overhead(25%)				18668.78		16158.43		222.48
Total				94343.91		80792.17		1112.40
Unit price				94343.91		80792.17		1112.40

Item No.

Work: Concrete lining, transportation only

Remarks: 70m³/span, 2000m, D/D

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Operator	md	2.000	0.00	0.00	25600.00	51200.00	0.00	0.00
Assist operator	md	2.000	0.00	0.00	17900.00	35800.00	0.00	0.00
Subtotal (FC*1.0, LC*1.785)				0.00		155295.00		0.00
Material cost								
Electrician	kwh	0.000	7.00	0.00	281.00	0.00	8.00	0.00
Miscellaneous(3%)				0.00		0.00		0.00
Subtotal				0.00		6.00		0.00
Equipment cost								
Locomotive, 6t	hr	8.000	4625.00	37000.00	26600.00	212800.00	0.00	0.00
Vent fan, 100m ³	day	1.000	259.00	259.00	879.00	879.00	0.00	0.00
Miscellaneous(5%)				1862.95		10683.35		0.00
Subtotal				39121.95		224362.95		0.00
Overhead(25%)				9780.49		94914.49		0.00
Total				48902.44		474572.44		0.00
Unit price				698.61		6779.61		0.00

Item No.

Work: Steel support for shaft

Remarks: 1ton, installation work

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount	Unit Cost	Amount	Unit Cost	Amount
Labor cost								
Foreman	md	0.050	0.00	0.00	20600.00	1030.00	0.00	0.00
Operator	md	0.200	0.00	0.00	25600.00	5120.00	0.00	0.00
Rigger	md	1.200	0.00	0.00	19000.00	22800.00	0.00	0.00
Steel worker	md	0.400	0.00	0.00	19000.00	7600.00	0.00	0.00
Common labor	md	0.400	0.00	0.00	17300.00	6920.00	0.00	0.00
Subtotal				0.00		43470.00		0.00
Material cost								
Light oil	lit	30.000	4.00	120.00	353.00	10590.00	1.00	30.00
Lubricant	lit	1.400	44.00	61.60	4150.00	5810.00	500.00	700.00
Grease	kg	0.300	58.00	17.40	5395.00	1618.50	650.00	195.00
Miscellaneous(3%)				5.97		540.56		27.75
Subtotal				204.97		18559.06		952.75
Equipment cost								
Truck crane, 30t	hr	2.000	5705.00	11410.00	22654.00	45308.00	0.00	0.00
Miscellaneous(5%)				570.50		2265.40		0.00
Subtotal				11980.50		47573.40		0.00
Overhead(25%)				3046.37		27400.61		238.19
Total				15231.84		137003.07		1190.94

S TUNNEL WORK (2)

Work	Unit	** FC ** (Yen)	LC (S/.)	Duty, Tax (S/.)	** LC ** (S/.)	Total (S/.)	Total (US\$)
Steel support, penstock, H-125	ton	122355.30	135949.04	2465.43	138414.47	2891408.72	1285.07
Rock bolt in tunnel	m	2026.24	16155.42	41.19	16196.61	61787.01	27.46
Wire mesh, 3.2*100*100	m2	396.76	1928.92	131.26	2060.18	10937.28	4.88
Shotcrete(including 30% loss)	m3	14958.35	107789.34	17889.60	125678.94	462241.82	205.44
Package 1							
Shotcrete(including 30% loss)	m3	15404.77	112086.88	19323.12	131410.00	478017.33	212.45

Item No.

Work: Steel support, penstock tunnel

Remarks: item, H-125*125

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost including excavation cost								
Material cost								
H steel, 125*125	ton	0.188	68480.00	12874.24	48150.00	9052.20	0.00	
Steel plate, top	pc	2.000	750.00	1500.00	1181.00	2362.00	0.00	
Steel plate, bottom	pc	2.000	1000.00	2000.00	1575.00	3150.00	0.00	
Bolt, 19*50	pc	2.000	30.00	60.00	47.00	94.00	0.00	
Tie rod, 18mm*1.60m	pc	7.000	200.00	1400.00	315.00	2205.00	0.00	
Timber log, 60mm*1.2m, Spc	m3	0.030	1067.00	32.01	93500.00	2986.00	12000.00	
Miscellaneous(3%)				535.99		595.54	10.80	
Subtotal				18402.24		20446.74	370.80	
Overhead(25%)				4600.56		5111.68	92.70	
Total				23002.80		25558.42	463.50	
Unit price				122355.30		135943.04	2465.43	

Item No.
 Work: Rock bolt in tunnel
 Remarks: 25mm, 2.50m*10-25
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	nd	0.256	0.00	0.00	24700.00	6323.20	0.00	0.00
Driller	nd	1.280	0.00	0.00	20200.00	53356.00	0.00	0.00
Common labor	nd	2.560	0.00	0.00	17300.00	44288.00	0.00	0.00
Skilled labor	nd	2.560	0.00	0.00	20900.00	53504.00	0.00	0.00
Subtotal(*1.785)				0.00		231993.59		0.00
Material cost								
Bit, 36mm	No	0.250	7383.00	1845.75	8306.00	2076.53	0.00	0.00
Rod, 22mm	No	0.167	9737.00	1626.08	10954.00	1829.32	0.00	0.00
Mortar pack, 25mm, 100cc	No	10.000	621.00	6210.00	699.00	6920.00	0.00	0.00
Rock bolt, 2.5m	No	10.000	1830.00	18300.00	2059.00	20590.00	0.00	0.00
Mortar(2nd), dry	kg	60.960	64.00	3901.44	72.00	4389.12	0.00	0.00
Electric	kwh	99.984	7.00	699.89	281.00	28095.50	8.00	799.87
Miscellaneous(3%)				977.49		1919.11		24.00
Subtotal				33560.65		65889.56		823.87
Equipment cost								
Stoper drill, 3.7m ³ /min	day	0.640	1600.00	1062.40	3426.00	2192.64	0.00	0.00
Air compressor, 7m ³ /min	day	0.640	7408.00	4741.12	29413.00	18924.32	0.00	0.00
Miscellaneous(20%)				1160.70		4203.39		0.00
Subtotal				6964.22		25220.35		0.00
Overhead(25%)				10131.22		80777.12		205.97
Total				50656.09		403855.82		1029.84
Unit price				2026.24		16155.42		41.19

Item No.

Work: Wire mesh for shotcrete

Remarks: 180m², 6m*30m, 3.2mm*100#100

Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
Labor cost								
Foreman	md	0.100	0.00	0.00	24700.00	2470.00	0.00	0.00
Concrete worker	md	1.500	0.00	0.00	19000.00	28500.00	0.00	0.00
Skilled labor	md	1.500	0.00	0.00	20900.00	31350.00	0.00	0.00
Driller	md	2.076	0.00	0.00	20200.00	41935.20	0.00	0.00
Subtotal				0.00		104255.20		0.00
Material								
Wire mesh, 3.2mm, 100#100	m ²	180.000	166.00	29880.00	187.00	33660.00	0.00	0.00
Deformed bar, 13mm	ton	0.161	24558.00	3953.52	323000.00	52003.00	85000.00	13685.00
Taper rod	No	0.810	8731.00	7072.11	9822.00	7955.82	0.00	0.00
Cross bit, 36mm	No	1.080	7383.00	7973.64	8306.00	8970.48	0.00	0.00
Mortar***	m ³	0.203	6615.59	1342.96	119677.20	24294.47	22655.62	4599.09
Light oil	lit	67.500	4.00	270.00	353.00	23827.53	1.00	67.50
Miscellaneous(3%)				1514.77		4521.34		550.55
Subtotal				52007.00		155232.61		18902.14
Equipment cost								
Leg hammer,	day	1.038	1000.00	1038.00	2063.00	2141.39	0.00	0.00
Air compressor	day	0.519	7408.00	3844.75	29413.00	15265.35	0.00	0.00
Miscellaneous(5%)				244.14		870.34		0.00
Subtotal				5126.89		18277.08		0.00
Overhead(25%)				14283.47		69441.22		4725.53
Total				71417.36		347206.11		23627.67
Unit price				396.76		1928.92		131.26

Item No.
 Work: Shotcrete
 Remarks: 1m3,
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
A. Material (1m3)								
Cement	ton	0.350	4969.00	1739.15	65369.09	22876.00	17200.00	8020.00
Aggregate, coarse, 15mm***	ton	0.750	803.00	602.25	7745.00	5808.75	2582.00	1936.50
Aggregate, fine***	ton	1.120	797.00	892.64	7688.00	8610.56	2563.00	2870.56
Agent	kg	14.000	214.00	2996.00	241.00	3374.00	0.00	0.00
Subtotal				6230.04		40669.31		10827.06
Overhead(25%)				1557.51		19167.33		2706.77
Total				7787.55		50836.64		13533.83
B. Mixing (dry)								
Mixing				475.03		4328.29		16.02
Carrying				231.86		2389.08		25.46
Transp in tunnel				907.07		9367.40		22.39
Total				1613.96		16084.77		63.87
C. Spraying								
10cm, 100m3/day								
Labor cost								
Foreman	nd	1.000	0.00	0.00	24700.00	24700.00	0.00	0.00
Operator	nd	2.000	0.00	0.00	25600.00	51200.00	0.00	0.00
Assist operator	nd	2.000	0.00	0.00	17900.00	35800.00	0.00	0.00
Common labor	nd	2.000	0.00	0.00	17300.00	34600.00	0.00	0.00
Skilled labor	nd	2.000	0.00	0.00	20900.00	41800.00	0.00	0.00
Common labor	nd	4.000	0.00	0.00	17300.00	69200.00	0.00	0.00
Subtotal(*1.785)						459280.50		0.00
Material cost								
Electric	kwh	2250.045	7.00	15750.32	281.03	632262.65	8.00	18000.36
Miscellaneous(3%)				472.51		18967.88		540.01
Subtotal				16222.82		651230.52		18540.37
Equipment cost								
Spray machine, 6m3/hr	hr	16.667	4977.00	82951.66	20392.00	339873.46	0.00	0.00
Fan, 30kw	day	1.000	3784.00	3784.00	12863.00	12863.00	0.00	0.00
Dust collector, 30kw	hr	16.667	6728.00	112135.58	23220.00	387037.74	0.00	0.00
Locomotive, 6t	hr	4.167	4625.00	19272.38	26600.00	110842.20	0.00	0.00
Air compressor, 75kw	hr	16.667	707.00	11783.57	2613.00	43550.87	0.00	0.00
Miscellaneous(5%)				11496.36		44706.86		0.00
Subtotal				241423.54		938844.14		0.00
Overhead(25%)				64411.59		512338.79		4635.09
Total				322057.95		2561693.95		23175.46
Unit price(1m3)				3220.58		25616.94		231.75
Unit price(combine), A+B+C				12622.09		92538.35		13329.45
Loss of material, 30%				2336.27		15256.99		4060.15
Unit price including loss				14958.35		107789.34		17889.60

Item No.
 Work: Shotcrete
 Remarks: 1m3,
 Unit price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount (S/.)
A. Material (1m3)								
Cement	ton	0.350	4969.00	1739.15	65360.00	22876.00	17200.00	6020.00
Aggregate, coarse, 15mm***	ton	0.750	1011.00	758.25	9745.00	7308.75	3249.00	2436.75
Aggregate, fine***	ton	1.120	903.00	1011.36	8710.00	9755.20	2904.00	3252.48
Agent	kg	14.000	214.00	2996.00	241.00	3374.00	0.00	0.00
Subtotal				6504.76		43313.95		11709.23
Overhead(25%)				1626.19		10828.49		2927.31
Total				8130.95		54142.44		14636.54
B. Mixing (dry)								
Mixing				475.03		4328.29		16.02
Carrying				231.86		2389.08		25.46
Transp in tunnel				907.07		9367.40		22.39
Total				1613.96		16084.77		63.87
C. Spraying								
10cm, 100m3/day								
Labor cost								
Foreman	md	1.000	0.00	0.00	24700.00	24700.00	0.00	0.00
Operator	md	2.000	0.00	0.00	25600.00	51200.00	0.00	0.00
Assist operator	md	2.000	0.00	0.00	17900.00	35800.00	0.00	0.00
Common labor	md	2.000	0.00	0.00	17300.00	34600.00	0.00	0.00
Skilled labor	md	2.000	0.00	0.00	20900.00	41800.00	0.00	0.00
Common labor	md	4.000	0.00	0.00	17300.00	69200.00	0.00	0.00
Subtotal(*1.785)						459280.50		0.00
Material cost								
Electric	kwh	2250.045	7.00	15750.32	281.00	632262.65	8.00	18000.36
Miscellaneous(3%)				472.51		18967.88		540.01
Subtotal				16222.82		651230.52		18540.37
Equipment cost								
Spray machine, 6m3/hr	hr	16.667	4977.00	82951.66	20392.00	339873.46	0.00	0.00
Fan, 30kw	day	1.000	3784.00	3784.00	12863.00	12863.00	0.00	0.00
Dust collector, 30kw	hr	16.667	6728.00	112135.58	23220.00	387097.74	0.00	0.00
Locomotive, 6t	hr	4.167	4625.00	19272.38	26600.00	110842.20	0.00	0.00
Air compressor, 75kw	hr	16.667	707.00	11783.57	2613.00	43550.57	0.00	0.00
Miscellaneous(5%)				11436.36		44766.86		0.00
Subtotal				241423.54		938844.14		0.00
Overhead(25%)				64411.59		512338.79		4635.09
Total				322057.95		2561693.95		23175.46
Unit price(1m3)				3220.58		25616.94		231.75
Unit price(combine), A+B+C				12965.49		95844.15		14932.16
Loss of material, 30%				2439.29		16242.73		4390.96
Unit price including loss				15404.77		112086.88		19323.12

T BUILDING WORK (1)

Item No.

Work: Unit price for plumbing, electric, etc.

Remarks:

Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (US\$)	Unit Cost	Amount (S/.)	Unit Cost	Amount
Pressed steel section tank 12m ³ , raw water FC: 4,270 US\$ Overhead 25% Install 30%	no.		5337.50		2602813.00		
Pressed steel section tank 4m ³ , treated water FC: 2,330 US\$ Overhead 25% Install 30%	no.		2912.50		1955938.00		
Centrifugal pump FC: 2,350 US\$ Overhead 25% Install 10%	no.		2937.50		660938.00		
Air compressor pump FC: 730 US\$ Overhead 25% Install 10%	no.		912.50		205313.00		
Water filter plant FC: 4,785 US\$ Overhead 25% Install 20%	no.		5981.25		2691563.00		
Chlorinator FC: 1,610 US\$ Overhead 25% Install 10%	no.		2012.50		452813.00		
Electric panel FC: 245 US\$ Overhead 25% Install 10%	no.		306.25		68906.00		
Pressure vessel FC: 880 US\$ Overhead 25% Install 10%	no.		1100.00		247500.00		
Pressure gauge FC: 100 US\$ Overhead 25% Install 10%	no.		125.00		28125.00		

Item No.
 Work:Unit price for plumbing,electric,etc.
 Remarks:
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (US\$)	Unit Cost	Amount (S/.)	Unit Cost	Amount
Auto air release FC:50 US\$ Overhead 25% Install 10%	no.		62.50		14063.00		

Item No.
 Work:Unit price for plumbing,electric,etc.
 Remarks:
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount
Bronze gate valve FC:2,900 Yen Freight,Overhead 25% x 1.07 x 1.25 x FC Install 10%	no.		3879.00		8728.00		
Flexible joint 65mm,1,350 Yen	no.		1806.00		8123.00		
50mm,705 Yen	no.		943.00		4244.00		
40mm,465 Yen	no.		622.00		2799.00		
32mm,365 Yen	no.		488.00		2196.00		
FC 1.07x1.25 Install 10%							
Check valve,32mm FC:3590 Yen Install 10%	no.		4802.00		10805.00		
Electric heater,7 lit,1.5kw FC:80,000Yen Install 10%	no.		107000.00		240750.00		
Septic tank FC:230,000Yen Install 20%	no.		307625.00		1384312.00		
Fire hydrant pump FC:600,000Yen Install 20%	no.		802500.00		3611250.00		

Item No.
 Work:Unit price for plumbing,electric,etc.
 Remarks:
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (US\$)	Unit Cost	Amount (S/.)	Unit Cost	Amount

Item No.
 Work:Unit price for plumbing,electric,etc.
 Remarks:
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount

CV cable,2c x 5.5mm2 FC:120Yen 1.07x1.25 Install 20%	m		160.00		720.00		
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CV cable,4c x 3.5mm2 FC:155Yen 1.07x1.25 Install 20%	m		207.00		932.00		
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CV cable,4c x 5.5mm2 FC:200Yen 1.07x1.25 Install 20%	m		268.00		1206.00		
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Conduit pipe,22mm FC:202Yen 1.07x1.25 Install 100%	m		270.00		6075.00		
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Conduit pipe,28mm FC:279Yen 1.07x1.25 Install 100%	m		373.00		8393.00		
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Copper rod,19mm,2.4m FC:5,400Yen 1.07x1.25 Install 20%	m		7222.00		32459.00		
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Item No. Pumping Station
 Work: Unit price for air conditioning
 and ventilation works

Remarks:

Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (US\$)	Unit Cost	Amount (S/.)	Unit Cost	Amount
Air conditioner, 45,600kcal US\$ 5,986 OH 25% LC, transp and install, 5%	set		7482.50		841781.00		
Air conditioner, 19,700kcal US\$ 2,545 OH 25% LC, transp and install, 5%	set		3181.25		357891.00		
Fan, 38,000, 50 Aq, 11kW US\$ 2,006 OH 25% LC, transp and install, 5%	set		2507.50		282094.00		
Fan, exhaust, 1020 US\$ 687 OH 25% LC, transp and install, 5%	set		858.75		96609.00		
Fan, exhaust US\$ 504 OH 25% LC, transp and install, 5%	set		630.00		70875.00		
Fan, exhaust US\$ 435 OH 25% LC, transp and install, 5%	set		543.75		61172.00		
Ventilating resistors, 500CMH US\$ 42 OH 25% LC, transp and install, 5%	set		52.50		5906.00		
Ventilating resistors, 430CMH US\$ 34 OH 25% LC, transp and install, 5%	set		42.50		4781.00		
Ventilating resistors, 1730CMH US\$ 108 OH 25% LC, transp and install, 5%	set		135.00		15188.00		
Ventilating resistors, 1530CMH US\$ 93	set		116.25		13078.00		

Item No. Pumping Station
 Work: Unit price for air conditioning
 and ventilation works

Remarks:

Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (US\$)	Unit Cost	Amount (S/.)	Unit Cost	Amount
US\$ 93 OH 25% LC, transp and install, 5%							
Ventilating resistors, 2200CHH set US\$ 114 OH 25% LC, transp and install, 5%			142.50		16031.00		
Ventilating resistors, 1890CHH set US\$ 114 OH 25% LC, transp and install, 5%			142.50		16031.00		
Ventilating resistors, 1540CHH set US\$ 95 OH 25% LC, transp and install, 5%			118.75		13359.00		
Ventilating resistors, 1840CHH set US\$ 114 OH 25% LC, transp and install, 5%			142.50		16031.00		
Ventilating resistors, 300CHH set US\$ 25 OH 25% LC, transp and install, 5%			31.25		3516.00		
Return gullees, 950 set US\$ 62 OH 25% LC, transp and install, 5%			77.50		8719.00		
Return gullees, 900 set US\$ 59 OH 25% LC, transp and install, 5%			73.75		8297.00		
Return gullees, 750 set US\$ 36 OH 25% LC, transp and install, 5%			45.00		5063.00		

Item No. Pumping Station
 Work: Unit price for air conditioning
 and ventilation works

Remarks:

Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (US\$)	Unit Cost	Amount (S/.)	Unit Cost	Amount
US\$ 39 OH 25% LC, transp and install, 5%							
Diffusers, 780 US\$ 69 OH 25% LC, transp and install, 5%	set		86.25		9703.00		
Diffusers, 1020 US\$ 69 OH 25% LC, transp and install, 5%	set		86.25		9703.00		
Diffusers, 1100 US\$ 69 OH 25% LC, transp and install, 5%	set		86.25		9703.00		
Diffusers, 630 US\$ 69 OH 25% LC, transp and install, 5%	set		86.25		9703.00		
Diffusers, 580 US\$ 69 OH 25% LC, transp and install, 5%	set		86.25		9703.00		
Volume damper, 850 x 200 US\$ 33 OH 25% LC, transp and install, 5%	set		41.25		4641.00		
Volume damper, 200 x 150 US\$ 25 OH 25% LC, transp and install, 5%	set		31.25		3516.00		
Fire damper, 1100 x 350 US\$ 95 OH 25% LC, transp and install, 5%	set		118.75		13359.00		

Item No. Pumping Station
 Work: Unit price for air conditioning
 and ventilation works

Remarks:

Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (US\$)	Unit Cost	Amount (S/.)	Unit Cost	Amount
US\$ 65 OH 25% LC, transp and install, 5%							
Louvers, 37,750 US\$ 1,560 OH 25% LC, transp and install, 5%	set		1950.00		219375.00		
Louvers, 300 US\$ 200 OH 25% LC, transp and install, 5%	set		250.00		28125.00		
Louvers, 650 US\$ 212 OH 25% LC, transp and install, 5%	set		265.00		29813.00		
Zinc plate steel, gage 22/24 (ventilation) S/.5200 OH 25%	kg		0.00		6500.00		
Zinc plate steel, gage 22/24 (air conditioning) S/.5800 OH 25%	kg		0.00		7250.00		
Refrigerant pipe, 19mm US\$ 6.5 OH 25% LC, transp and install, 5%	m		8.13		915.00		
Refrigerant pipe, 16mm US\$ 7.8 OH 25% LC, transp and install, 5%	m		9.75		1097.00		

Item No. Conguillo

Work: Unit price for ventilation work

Remarks:

Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (US\$)	Unit Cost	Amount (S/.)	Unit Cost	Amount
Multi fan, 20160 CMH US\$ 1,700 OH 25% LC, transp and install, 5%	set		2125.00		239063.00		
Intake louver, 1800 x 1500 US\$ 812 OH 25% LC, transp and install, 5%	set		1015.00		114188.00		
Ventilating resistors, 400 x 200 US\$ 34 OH 25% LC, transp and install, 5%	set		42.50		4781.00		
Ventilating resistors, 200 x 150 US\$ 20 OH 25% LC, transp and install, 5%	set		25.00		2813.00		
Zinc plate steel, gage 22/24 (ventilation) S/. 5200 OH 25%	kg		0.00		6500.00		

Item No. Poza Honda

Work: Unit price for ventilation work

Remarks:

Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (US\$)	Unit Cost	Amount (S/.)	Unit Cost	Amount
Multi fan, 15480CMH US\$ 1,500 OH 25% LC, transp and install, 5%	set		1875.00		210938.00		
Intake louver, 1200 x 1500 US\$ 650 OH 25% LC, transp and install, 5%	set		812.50		91406.00		

Item No. Poza Honda
 Work: Unit price for ventilation work
 Remarks:
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (US\$)	Unit Cost	Amount (S/-)	Unit Cost	Amount
Multi fan, 15480CMH US\$ 1,500 OH 25% LC, transp and install, 5%	set		1875.00		210938.00		
Intake louver, 1200 x 1500 US\$ 650 OH 25% LC, transp and install, 5%	set		812.50		91406.00		
Ventilating resistors, 400 x 200 US\$ 34 OH 25% LC, transp and install, 5%	set		42.50		4781.00		
Ventilating resistors, 800 x 150 US\$ 20 OH 25% LC, transp and install, 5%	set		25.00		2813.00		
Ventilating resistors, 200 x 150 US\$ 20 OH 25% LC, transp and install, 5%	set		25.00		2813.00		
Zinc plate steel, gage 22/24 (ventilation) S/.5200 OH 25%	kg		0.00		6500.00		

Item No.
 Work: Unit price for building works
 Remarks:
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount
Polysulfied caulking, 20mm 843 Yen/m Others 10% Local 10%	m		927.00		1837.00		
Polysulfied caulking, 10x7mm 193 Yen/m Others 10% Local 10%	m		212.00		434.00		
Parapet ring 8200 Yen/no 90% FC, 10% LC	no		7389.00		18450.00		
Stainless steel nosing to stair 3063 Yen/m 10% LC	m		3063.00		6892.00		
Sheet wire glass, 6.8mm 3070 Yen/m ² CIF 1.07% Overhead 25% Local 10%	m ²		4106.00		9238.00		

Item No.
 Work: Unit price for others
 Remarks:
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount
Guardrail, 3.2mm, 350mm, 4330m 5500 Yen CIF 1.07% Overhead 25% LC 20%	m		7356.00		33163.00		
Warning sign 5000 Yen CIF 1.07% Overhead 25% LC 20%	no		12038.00		54169.00		
Bearing pad 19620 Yen CIF 1.07% Overhead 25% LC 10%	no		26242.00		59044.00		
Steel grating 270 Yen/kg CIF 1.07% Overhead 25% LC 10%	kg		361.13		813.00		
Checkered plate, drain ditch 78 Yen/kg CIF & manufacture Overhead 25% LC 10%	kg		97.50		219.00		
3-ply asphalt roof 4000 Yen/m ² FC, LC 50%	m ²		2000.00		45000.00		
2-ply asphalt roof 6000 Yen/m ² FC, LC 50%	m ²		3000.00		67500.00		
Clear wire glass 3000 Yen/m ² CIF 1.07% Overhead 25% LC 10%	m ²		4012.50		9028.00		
Steel pipe embedded, 125mm 1345 Yen/m CIF 1.07% Overhead 25% LC 20%	m		1799.00		8095.00		

Item No.

Work: Unit price for others

Remarks:

Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount
Grating steel hatch 50860 Yen/no CIF 1.07% Overhead 25% LC 10%	no		68025.00		153056.00		
Cast iron pipe, 75mm 790 Yen/m CIF 1.07% Overhead 25% LC 20%	m		1057.00		4766.00		
Elevator 3000000 Yen FC, LC 90%, 10% Overhead 25%	no		3375000.00		8437500.00		
Galvanizes pipe CIF 1.07% Overhead 25% LC install 20%							
80 mm	m		1786.00		8037.00		
65 mm	m		1491.00		6710.00		
50 mm	m		1038.00		4671.00		
40 mm	m		758.00		3411.00		
32 mm	m		659.00		2965.00		
25 mm	m		496.00		2232.00		
20 mm	m		354.00		1593.00		
Bronze galva valves CIF 1.07% Overhead 25% LC install 10%							
65 mm	no		19795.00		44539.00		
50 mm	no		7517.00		16913.00		
40 mm	no		5109.00		11495.00		
25 mm	no		2301.00		5177.00		
20 mm	no		1685.00		3791.00		

Item No.
 Work: Unit price for others
 Remarks:
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount
Lead pipe								
CIF 1.07%								
Overhead 25%								
LC install 20%								
75 mm	m			1665.00		7448.00		
65 mm	m			1465.00		6593.00		
30 mm	m			702.00		3159.00		
Cast iron pipe, 50mm	m			904.00		4068.00		
Check valve								
CIF 1.07%								
Overhead 25%								
LC install 20%								
65 mm	no			19527.00		87872.00		
40 mm	no			5845.00		19665.00		
25 mm	no			2769.00		12461.00		
Electric heater	no			214000.00		481500.00		
160,000 Yen								
CIF 1.07%								
Overhead 25%								
LC install 10%								
Septic tank	no			307625.00		1384312.00		
230,000 Yen								
CIF 1.07%								
Overhead 25%								
LC install 20%								
Portable fire extinguisher	no			13375.00		30094.00		
10,000 Yen								
CIF 1.07%								
Overhead 25%								
LC install 10%								
Fire hydrant box	no			46813.00		105329.00		
35,000 Yen								
CIF 1.07%								
Overhead 25%								
LC install 10%								
Flow meter	no			65538.00		147461.00		
49,000 yen								
CIF 1.07%								
Overhead 25%								
LC install 10%								

Item No.
 Work: Unit price for others
 Remarks:
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount
Gate valve, 65mm 14,800 Yen CIF 1.07% Overhead 25% LC install 10%	no		19795.00		44539.00		
Check valve 14,600 Yen CIF 1.07% Overhead 25% LC install 10%	no		19527.00		43936.00		
Test valve 4,400 Yen CIF 1.07% Overhead 25% LC install 10%	no		5885.00		13241.00		
Galv. steel pipe CIF 1.07% Overhead 25% LC install 20%							
65mm, 1,115 Yen	m		1491.00		6701.00		
50mm, 776 Yen	m		1038.00		4671.00		
40mm, 567 Yen	m		758.00		3411.00		
Roof drain 6,500 Yen/no. FC 80% LC 20%	no		5200.00		29250.00		
Checkered steel plate 13,560 Yen CIF 1.07% Overhead 25% LC install 10%	m2		18137.00		40808.00		

Item No.
 Work: Unit price for others
 Remarks:
 Unit Price:

Description	Unit	Quantity	Foreign Currency		Local Currency		Duty & Tax	
			Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount
Lighting fixtures								
CIF 1.07%								
Overhead 25%								
LC install 10%								
Type A1,30,000 Yen	no			40125.00		90281.00		
Type A2,20,000 Yen	no			26750.00		60188.00		
Type B1,25,000 Yen	no			33438.00		75235.00		
Type B2,20,000 Yen	no			26750.00		60188.00		
Type C ,10,000 Yen	no			13375.00		30094.00		
Type D1,25,000 Yen	no			33438.00		75236.00		
Type C2,20,000 Yen	no			26750.00		60188.00		
Type E ,10,000 Yen	no			13375.00		30094.00		
Type F ,15,000 Yen	no			20063.00		45142.00		
Type G ,35,000 Yen	no			46813.00		105329.00		
Type H ,200,000 Yen	no			267500.00		601875.00		
Safety switch								
1,500 Yen	no			2006.00		9027.00		
CIF 1.07%								
Overhead 25%								
LC install 20%								
Conduit pipe								
CIF 1.07%								
Overhead 25%								
LC install 100%								
16mm,160 Yen	n			214.00		4815.00		
22mm,202 Yen	n			270.00		6075.00		
42mm,410 Yen	n			548.00		12330.00		
54mm,593 Yen	n			793.00		17843.00		
CV cable								
CIF 1.07%								
Overhead 25%								
LC install 20%								
2C x 8mm2 ,148 Yen	n			198.00		891.00		
2C x 22mm2,313 Yen	n			419.00		1886.00		
2C x 38mm2,487 Yen	n			651.00		2930.00		
4C x 22mm2,578 Yen	n			773.00		3479.00		
PABX								
3,000,000 Yen	set			4012500.00		9028125.00		
CIF 1.07%								
Overhead 25%								
LC install 10%								

Item No.

Work: Unit price for others

Remarks:

Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount
Battery charger 200,000 Yen CIF 1.07% Overhead 25% LC install 10%	set		267500.00		601875.00		
Telephone set 9,200 Yen CIF 1.07% Overhead 25% LC install 10%	set		12305.00		55373.00		
Telephone wire CIF 1.07% Overhead 25% LC install 20%							
Indoor, 141 Yen	m		189.00		851.00		
Outdoor, 200 Yen	m		268.00		1266.00		
Earthing conductor CIF 1.07% Overhead 25% LC install 20%							
100mm ² , 400 Yen	m		535.00		2408.00		
38mm ² , 146 Yen	m		195.00		878.00		
50mm ² , 223 Yen	m		298.00		1341.00		
Copper plate 14,150 Yen/no CIF 1.07% Overhead 25% LC install 20%	no		18926.00		85167.00		
Copper rod 2,070 Yen CIF 1.07% Overhead 25% LC install 20%	no		2769.00		12461.00		
Clamp for copper plate/rod 550 Yen CIF 1.07% Overhead 25% LC install 20%	no		736.00		3312.00		

Item No.
 Work:Unit price for others
 Remarks:
 Unit Price:

Description	Unit Quantity	Foreign Currency		Local Currency		Duty & Tax	
		Unit Cost	Amount (Yen)	Unit Cost	Amount (S/.)	Unit Cost	Amount
PVC pipe, 25mm 138 Yen CIF 1.07% Overhead 25% LC install 20%	m		185.00		833.00		
PVC perforated pipe, open channel, 100mm 1,700 Yen CIF 1.07% Overhead 25% LC install 10%	m		2274.00		5116.00		
Trasrack 600,000 Yen/ton FC 90% LC 10%	kg		540.00		1350.00		

U BUILDING WORK (2)

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: wall of 150 mm thick, hollow concrete block/mortar. 1:5
 SPECIFICATIONS: Hollow concrete block masonry, 150 mm. W/ mortar 1:15

DATE: 20-x-94
 Unit: m²
 ITEM: /18a

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Hollow block, 150 mm	U	12.50	773.55	9669.38
Mortar, 1:5	M3	0.02	122594.57	2451.89
Gravel	M3	0.08	14343.00	1147.44
Total of materials				A: 13268.71

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Scaffold	1.34	250.00	335.00
Total of machinery and tools			B: 495.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Mason	III	1.28	525.00	672.00
Common laborer	I	1.28	425.00	544.00
Total of labor				C: 1216.00

DIRECT COSTS (A+B+C)

14980.51

INDIRECT COSTS 25%

3745.13

UNIT PRICES

18725.63

REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: wall of 100 mm thick, hollow concrete block/mortar. 1:5
 SPECIFICATIONS: Hollow concrete block masonry, 100 mm. W/ mortar 1:15

DATE: 20-x-94
 Unit: m³
 ITEM: /18b

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Hollow block, 100 mm	U	12.50	618.30	7728.75
Mortar, 1:5	M3	0.02	122594.57	2451.89
Gravel	M3	0.08	14343.00	1147.44
Total of materials			A:	11328.08

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Scaffold	1.34	250.00	335.00
Total of machinery and tools			B: 495.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Mason	III	1.20	525.00	630.00
Common laborer	I	1.20	425.00	510.00
Total of labor			C:	1140.00

DIRECT COSTS (A+B+C) 12963.88

INDIRECT COSTS 25% 3240.97

UNIT PRICES 16204.85

REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Mosaic tile (0,50) 20 x 20 cm/ cement mortar. 1:4
 SPECIFICATIONS: Mosaic tile (0,50) 20 x 20 cm/ cement mortar. 1:4

DATE: 20-x-94
 Unit: m²
 ITEM: /21

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Mosaic of 0,05	M2	1.00	82350.00	82350.00
Cement mortar, 1:4	M3	0.03	186770.38	5603.11
White cement	KG	0.50	700.92	350.46
Lithopone	KG	0.50	1188.00	594.00
Water	M3	0.08	616.67	49.33
Total of materials				A: 88946.91

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.46	120.00	175.20
Total of machinery and tools			B: 175.20

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.61	695.75	424.41
Mason	III	1.22	525.00	640.50
Common labor	I	1.22	425.00	518.50
Total of labor				C: 1583.41

DIRECT COSTS (A+B+C)

90705.51

INDIRECT COSTS 25%

22672.38

UNIT PRICES

113381.89

REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Steel made door mat
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /52

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Steel angle	ML	0.50	2465.10	1232.55
Steel bars	KG	25.00	1244.30	31107.50
Welding	KG	5.50	35000.00	192500.00
Non-rust paint	M2	0.04	2257.20	90.29
Total of materials			A:	224930.34

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.50	120.00	180.00
Weld	1.50	6570.00	9855.00
Total of machinery and tools			B: 10035.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.38	695.75	264.39
Skilled laborer	III	0.75	525.00	393.75
Assistant of Skilled labor	II	0.75	462.50	346.88
Mason	III	0.75	525.00	393.75
Total of labor			C:	1398.76

DIRECT COSTS (A+B+C) 236364.10
 INDIRECT COSTS 25% 59091.02
 UNIT PRICES 295455.12
 REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Welded Mesh R84
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /09

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Armex mesh R84	UNIDAD	1.00	2772.00	2772.00
Weld		0.50	35000.00	17500.00
Total of materials				A: 20272.00

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	0.75	120.00	90.00
Total of machinery and tools			B: 90.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.12	695.75	83.49
Skilled laborer	III	0.25	525.00	131.25
Assistant of skilled laborer	II	0.25	462.50	115.63
Mason	III	0.12	525.00	63.00
Total of labor				C: 393.37

DIRECT COSTS (A+B+C)	20755.37
INDIRECT COSTS 25%	5188.84
UNIT PRICES	25944.21
REMARKS:	

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Metal Lath to protect cement mortar
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /10

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Molding of galvanized metal	M2	1.00	19453.50	19453.50
Total of materials			A:	19453.50

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Total of machinery and tools			B: 160.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.33	695.75	229.60
Mason	III	0.67	525.00	351.75
Common Labor	I	0.67	425.00	284.75
Total of labor			C:	866.10

DIRECT COSTS (A+B+C)	20480.40
INDIRECT COSTS 25%	5120.10
UNIT PRICES	25600.50
REMARKS:	

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Metal Lath to protect cement mortar
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /11

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Molding of galvanized metal	M2	1.00	17702.23	17702.23
	U	6.00	65.00	390.00
Total of materials			A:	18092.23

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
	0.05		0.00
Total of machinery and tools			B: 160.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.33	695.75	229.60
Skilled laborer	III	0.33	525.00	173.25
Assistant of skilled laborer	II	0.33	462.50	152.63
Mason	III	0.33	525.00	173.25
Common Labor	I	0.33	425.00	140.25
Total of labor			C:	868.97

DIRECT COSTS (A+B+C)

19122.00

INDIRECT COSTS 25%

4780.50

UNIT PRICES

23902.50

REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Foamed polyethylene 50 mm thick, to expansion joint
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /12

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Thermo plack plate KM3	M2	1.00	8137.80	8137.80
Total of materials			A:	8137.80

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	6.00	120.00	720.00
Total of machinery and tools			B: 720.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	1.00	695.75	695.75
Mason	III	2.00	525.00	1050.00
Common Labor	I	4.00	425.00	1700.00
Total of labor			C:	3445.75

DIRECT COSTS (A+B+C) 12303.55

INDIRECT COSTS 25% 3075.89

UNIT PRICES 15379.44

REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Waterproof cement mortar / Drainage gutter substructure
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /15

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement	TON	0.58	360000.00	208800.00
Sand	M3	1.02	14343.75	14630.63
Water	M3	0.27	616.67	166.50
Total of materials				A: 223597.13

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Total of machinery and tools			B: 160.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Common Labor	I	5.40	425.00	2295.00
Total of labor				C: 2295.00

DIRECT COSTS (A+B+C)	226052.93
INDIRECT COSTS 25%	56513.23
UNIT PRICES	282566.16
REMARKS:	

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Asphalt coating to parapet, 400 mm. high
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /16

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Asphalt coating, IGOL DENSO1K/m²	KG	5.50	6756.75	37162.13
Total of materials			A:	37162.13

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Total of machinery and tools			B: 160.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Mason	III	0.18	525.00	94.50
Common Labor	I	0.18	425.00	76.50
Total of labor			C:	171.00

DIRECT COSTS (A+B+C)	37493.93
INDIRECT COSTS 25%	9373.48
UNIT PRICES	46867.41
REMARKS:	

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Oil caulking around door and windows
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: ml
 ITEM: /17

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Oil caulking for joints, IGAS 200 gm/ml	KG	0.20	7782.75	1556.55
Total of materials				A: 1556.55

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	0.50	120.00	60.00
Total of machinery and tools			B: 60.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Mason	III	0.36	525.00	189.00
Skilled labor	III	0.36	525.00	189.00
Assistant of Skilled labor	II	0.18	462.50	83.25
Total of labor				C: 461.25

DIRECT COSTS (A+B+C)	2077.80
INDIRECT COSTS 25%	519.45
UNIT PRICES	2597.25
REMARKS:	

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Asphalt compound joint 25 mm. Wide/Covert C. Roof
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: ml
 ITEM: /18

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Waterproof band. Kontakt. 30 x 30 mm	M	1.00	1567.35	1567.35
Prime base bond IMPERMUL	KG	0.02	11419.65	228.39
Total of materials			A:	1795.74

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	0.65	120.00	78.00
Total of machinery and tools			B: 78.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Mason	III	0.45	525.00	236.25
Skilled Labor	III	0.45	525.00	236.25
Assistant of skilled labor	II	0.18	462.50	83.25
Total of labor			C:	555.75

DIRECT COSTS (A+B+C) 2429.49
 INDIRECT COSTS 25% 607.37
 UNIT PRICES 3036.87
 REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Concrete Block Masonry (Fair Faced) 150 x 200 x 400 mortar 1:5
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m³
 ITEM: /20

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Block 15 x 20 x 40 cm (heavy T)	U	12.50	826.20	10327.50
Mortar 1:5	M3	0.02	122594.57	2451.89
Resin	GALON	0.04	2453.10	98.12
Boards	U	0.30	2970.00	891.00
Nails	KG	2.00	10395.00	20790.00
Shore	ML	1.00	1147.50	1147.50
Total of materials			A:	35706.02

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	8.00	120.00	960.00
Scaffold	8.00	250.00	2000.00
Total of machinery and tools			B: 2960.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.62	695.75	431.37
Mason	III	0.62	525.00	325.50
Common Labor	I	0.62	425.00	263.50
Total of labor			C:	1020.37

DIRECT COSTS (A+B+C)

39686.38

INDIRECT COSTS 25%

9921.60

UNIT PRICES

49607.98

REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Hollow block 200x200x400, Mortar 1:5
 SPECIFICATIONS: 200 mm Walling Sub-Structure including bonding and filling.

DATE: 20-x-94
 Unit: m²
 ITEM: /20a

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Block 20 x 20 x 40 cm (heavy T)	U	12.50	976.05	12200.63
Mortar 1:5	M3	0.02	122594.57	2451.89
Resin	GALON	0.04	2453.10	98.12
Boards	U	0.30	2970.00	891.00
Nails	K9	2.00	10395.00	20790.00
Shore	ML	1.00	1147.50	1147.50
Total of materials			A:	37579.14

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	8.00	120.00	960.00
Scaffold	8.00	250.00	2000.00
Total of machinery and tools			B: 2960.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.62	695.75	431.37
Mason	III	0.62	525.00	325.50
Common Labor	I	0.62	425.00	263.50
Total of labor			C:	1020.37

DIRECT COSTS (A+B+C) 41559.51
 INDIRECT COSTS 25% 10389.88
 UNIT PRICES 51949.38
 REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: 100 mm Walling Substructure 100x200x400, Mortar 1:5, including bonding
 and filling
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²

ITEM: /20b

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Block 10 x 20 x 40 cm (heavy T)	U	12.50	631.80	7897.50
Mortar 1:5	M3	0.02	122594.57	2451.89
Resin	GALON	0.04	2453.10	98.12
Boards	U	0.30	2970.00	891.00
Nails	KG	2.00	10395.00	20790.00
Shore	ML	1.00	1147.50	1147.50
Total of materials			A:	33276.02

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	8.00	120.00	960.00
Scaffold	8.00	250.00	2000.00
Total of machinery and tools			B: 2960.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.62	695.75	431.37
Mason	III	0.62	525.00	325.50
Common Labor	I	0.62	425.00	263.50
Total of labor			C:	1020.37

DIRECT COSTS (A+B+C)	37256.38
INDIRECT COSTS 25%	9314.10
UNIT PRICES	46570.48
REMARKS:	

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Glazed Ceramic Tile
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /21

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Tile	M2	1.00	20119.05	20119.05
Cement	QQ	0.22	18000.00	3960.00
White cement	KG	1.50	700.92	1051.38
Lithopone	KG	0.50	1188.00	594.00
Water	M3	0.08	616.67	49.33
Total of materials				A: 25773.76

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.46	120.00	175.20
Total of machinery and tools			B: 175.20

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.36	695.75	250.47
Mason	III	0.73	525.00	383.25
Common Labor	I	0.73	425.00	310.25
Total of labor				C: 943.95

DIRECT COSTS (A+B+C) 26892.93
 INDIRECT COSTS 25% 6723.23
 UNIT PRICES 33616.17
 REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Terrazzo Tile to Floor
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /22

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement	QQ	0.44	18000.00	7920.00
Marble grain	KG	5.00	14715.00	73575.00
Pigment	KG	0.50	8500.00	4250.00
White Cement	KG	1.50	700.92	1051.38
Fiberglass	M	4.00	314.83	1259.23
Total of materials				A: 88055.66

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	4.00	120.00	480.00
Buffer	2.00		0.00
Total of machinery and tools			B: 480.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	1.00	695.75	695.75
Skilled Labor	III	2.00	525.00	1050.00
Assistant of skilled labor	II	2.00	462.50	925.00
Total of labor				C: 2670.75

DIRECT COSTS (A+B+C)

91206.41

INDIRECT COSTS 25%

22801.60

UNIT PRICES

114008.01

REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: PVC tile
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /23

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Vinyl 3,2 mm	M2	1.05	32076.00	33679.80
vinyl glue	GALON	0.06	25987.00	1559.22
Total of materials				A: 35239.02

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.14	120.00	136.80
Total of machinery and tools			B: 136.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.29	695.75	201.77
Skilled Labor	III	0.57	525.00	299.25
Assistant of skilled labor	II	0.57	462.50	263.63
Total of labor				C: 674.64

DIRECT COSTS (A+B+C)	36140.46
INDIRECT COSTS 25%	9035.12
UNIT PRICES	45175.58
REMARKS:	

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Sprayed Tile
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /24

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
White cement	KG	1.00	700.92	500.92
Cementite	QQ	0.04	13500.00	540.00
Resin	GALON	0.05	2453.10	122.66
Water	M3	0.08	616.67	49.33
Fibers	KG	0.05	15758.00	787.90
Amiantite	KG	0.50	8500.00	4250.00
Total of materials				A: 6450.81

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	0.50	120.00	60.00
Scaffold	0.50	250.00	125.00
Total of machinery and tools			B: 185.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.13	695.75	90.45
Skilled Labor	III	0.25	525.00	131.25
Assistant of skilled labor	II	0.25	462.50	115.63
Total of labor				C: 337.32

DIRECT COSTS (A+B+C)

6973.13

INDIRECT COSTS 25%

1743.28

UNIT PRICES

8716.41

REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Cement Mortar Trowelled Th = 20 mm (Reinforced Concrete)
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /25a

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement	QQ	0.22	18000.00	3960.00
Sand	M3	0.04	14343.75	573.75
Cementite	QQ	2.00	13500.00	27000.00
Water	M3	0.10	616.67	61.67
Waste 8%	M3	0.01	3500.00	35.00
Total of materials			A:	31630.42

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Scaffold	1.34	250.00	335.00
Total of machinery and tools			B: 495.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.33	695.75	229.60
Mason	III	0.67	525.00	351.75
Common labor	I	0.67	425.00	284.75
Total of labor			C:	866.10

DIRECT COSTS (A+B+C)

32992.31

INDIRECT COSTS 25%

8248.08

UNIT PRICES

41240.39

REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Cement Mortar Trowelled Th = 20 mm (concrete block W)
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /25b

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement	QQ	0.22	18000.00	3960.00
Sand	M3	0.04	14343.75	573.75
Cementite	QQ	2.00	13500.00	27000.00
Water	M3	0.10	616.67	61.67
Waste 8%	M3	0.01	3500.00	35.00
Total of materials			A:	31630.42

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Scaffold	1.34	250.00	335.00
Total of machinery and tools			B: 495.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.33	695.75	229.60
Mason	III	0.67	525.00	351.75
Common labor	I	0.67	425.00	284.75
Total of labor			C:	866.10

DIRECT COSTS (A+B+C)

32992.31

INDIRECT COSTS 25%

8248.08

UNIT PRICES

41240.39

REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Cement Mortar Plaster, 20 mm thick, skirting, 100 mm II.
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /25c

A. MATERIALS
 DESCRIPTION
 Cement Mortar 1:4

UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
M2	0.10	3735.41	373.54
Total of materials			A: 373.54

B. MACHINERY AND TOOLS
 DESCRIPTION
 Minor tools

EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
1.34	120.00	160.80
Total of machinery and tools		B: 160.80

C. LABOR
 DESCRIPTION

CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Total of labor			C: 0.00

DIRECT COSTS (A+B+C) 534.34
 INDIRECT COSTS 25% 133.59
 UNIT PRICES 667.93
 REMARKS: The labor is already considered in the mortar

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Cement Mortar Plaster, 20 mm thick, skirting, 200 mm H.
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /25d

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement Mortar 1:4	M2	0.20	3735.41	747.08
Total of materials			A:	747.08

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Total of machinery and tools			B: 160.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Total of labor			C:	0.00

DIRECT COSTS (A+B+C) 907.88

INDIRECT COSTS 25% 226.97

UNIT PRICES 1134.85

REMARKS: The labor is already considered in the mortar

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Cement Mortar Plaster, 20 mm thick, skirting, 300 mm H.
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /25e

A. MATERIALS
 DESCRIPTION
 Cement Mortar 1:4

UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
M2	0.30	3735.41	1120.62
Total of materials			A: 1120.62

B. MACHINERY AND TOOLS
 DESCRIPTION
 Minor tools

EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
1.34	120.00	160.80
Total of machinery and tools		B: 160.80

C. LABOR
 DESCRIPTION

CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Total of labor			C: 0.00

DIRECT COSTS (A+B+C) 1281.42
 INDIRECT COSTS 25% 320.36
 UNIT PRICES 1601.78

REMARKS: The labor is already considered in the mortar

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Cement Mortar Plaster, 30 mm thick, reinforced concrete floors
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /26a

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement Mortar 1:3	M3	0.03	230523.01	6915.69
Total of materials				A: 6915.69

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Total of machinery and tools			B: 160.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Total of labor				C: 0.00

DIRECT COSTS (A+B+C) 7076.49

INDIRECT COSTS 25% 1769.12

UNIT PRICES 8845.61

REMARKS: The labor is already considered in the mortar

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Cement Mortar Plaster, 30 mm thick, staircase
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /26b

A. MATERIALS
 DESCRIPTION
 Cement Mortar 1:3

UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
M2	1.00	6915.69	6915.69
Total of materials			A: 6915.69

B. MACHINERY AND TOOLS

DESCRIPTION
 Minor tools

EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
1.34		0.00
Total of machinery and tools		B: 0.00

C. LABOR
 DESCRIPTION

CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Total of labor			C: 0.00

DIRECT COSTS (A+B+C) 6915.69

INDIRECT COSTS 25% 1728.92

UNIT PRICES 8644.61

REMARKS: The labor is already considered in the mortar

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Cement Mortar Screed. 20 mm thick, Applied to Built Asphalt Roofing
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /27a

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement Mortar 1:4	M2	0.20	3735.41	747.08
Total of materials			A:	747.08

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Total of machinery and tools			B: 160.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	0.50	695.75	347.88
Mason	III	1.25	525.00	656.25
Common labor	I	1.25	425.00	531.25
Total of labor			C:	1535.38

DIRECT COSTS (A+B+C) 2443.26

INDIRECT COSTS 25% 610.81

UNIT PRICES 3054.07

REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Cement Mortar Bed, Applied to Glazed Ceramic Tile
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /28a

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement grout	M2	1.00	5880.74	5880.74
Total of materials			A:	5880.74

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Total of machinery and tools			B: 160.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Total of labor			C:	0.00

DIRECT COSTS (A+B+C)	6041.54
INDIRECT COSTS 25%	1510.39
UNIT PRICES	7551.93

REMARKS: The labor is already considered in the material

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Cement Mortar Bed, Applied to Terrazzo Tile
 SPECIFICATIONS:

DATE: 20-N-94
 Unit: m²
 ITEM: /28b

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement Grout	M2	1.50	5880.74	8821.11
Total of materials				A: 8821.11

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Total of machinery and tools			B: 160.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Total of labor				C: 0.00

DIRECT COSTS (A+B+C) 8981.91

INDIRECT COSTS 25% 2245.48

UNIT PRICES 11227.39

REMARKS: The labor is already considered in the material

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Cement Mortar Bed, Applied to Terrazzo Tile
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /28c

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement Grout	M2	2.00	5880.74	11761.48
Total of materials			A:	11761.48

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Total of machinery and tools			B: 160.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Total of labor			C:	0.00

DIRECT COSTS (A+B+C)

11922.28

INDIRECT COSTS 25%

2980.57

UNIT PRICES

14902.85

REMARKS: The labor is already considered in the material

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Concrete Trowel finishing on floor
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /29a-29b

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement	QQ	0.50	18000.00	9000.00
Water	M3	0.01	616.67	617
Total of materials			A:	9006.17

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	2.50	120.00	300.00
Total of machinery and tools			B: 300.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Mason	III	2.00	525.00	1050.00
Common labor	I	2.00	425.00	850.00
Total of labor			C:	1900.00

DIRECT COSTS (A+B+C)	11206.17
INDIRECT COSTS 25%	2801.54
UNIT PRICES	14007.71
REMARKS:	

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Terrazzo Tile to Floor
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²+10
 ITEM: /30

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement	QQ	0.44	18000.00	7920.00
Marble grain	KG	5.00	14715.00	73575.00
Pigment	KG	0.50	8500.00	4250.00
White cement	KG	1.50	700.92	1051.38
Fiberglass	M	4.00	314.83	1259.28
Total of materials				A: 88055.66

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	4.00	120.00	480.00
Buffer	2.00		0.00
Total of machinery and tools			B: 480.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master workman	V	1.00	695.75	695.75
Skilled labor	III	2.00	525.00	1050.00
Assistant of skilled labor	II	3.00	462.50	925.00
Total of labor				C: 2670.75

DIRECT COSTS (A+B+C)

91206.41

INDIRECT COSTS 25%

22801.60

UNIT PRICES

114008.01

REMARKS:

114008.01/10

=11400.80

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Terrazzo Tile to Floor
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²+10
 ITEM: /31

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement	QQ	0.44	18000.00	7920.00
Marble grain	KG	5.00	14715.00	73575.00
Pigment	KG	0.50	8500.00	4250.00
White cement	KG	1.50	700.92	1051.38
Fiberglass	M	4.00	314.82	1259.28
Total of materials			A:	88055.66

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	4.00	120.0	480.00
Buffer	2.00		0.00
Total of machinery and tools		B:	480.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	1.00	695.75	695.75
Skilled labor	III	2.00	525.00	1050.00
Assistant of skilled labor	II	2.00	462.50	925.00
Total of labor			C:	2670.75

DIRECT COSTS (A+B+C)

91206.41

INDIRECT COSTS 25%

22801.60

UNIT PRICES

114008.01

REMARKS:

114008.01/10
 =11400.80

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Terrazzo Tile to Floor
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /32

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Cement	QQ	0.44	18000.00	7920.00
Marble grain	KG	5.00	1415.00	73575.00
Pigment	KG	0.50	8500.00	4250.00
White cement	KG	1.50	700.92	1051.38
Fiberglass	M	4.00	314.83	1259.28
Total of materials			A:	88055.66

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	4.00	120.00	480.00
Buffer	2.00		0.00
Total of machinery and tools		B:	480.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	1.00	695.75	695.75
Skilled labor	III	2.00	525.00	1050.00
Assistant of skilled labor	II	2.00	462.50	925.00
Total of labor			C:	925.00

DIRECT COSTS (A+B+C)

91206.41

INDIRECT COSTS 25%

22801.60

UNIT PRICES

114008.01

REMARKS:

114008.01/5

= 22801.60

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Spray Tile on Exposed Concrete
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /32

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
White Cement	KG	1.00	700.92	700.92
Cementite	QQ	0.04	13500.00	540.00
Resin	GALON	0.05	2453.10	122.66
Water	M3	0.08	616.67	49.33
Total of materials				A: 1412.91

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	0.50	120.00	60.00
Scaffold	0.50	250.00	125.00
Total of machinery and tools			B: 185.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	0.13	695.75	90.45
Skilled labor	III	0.25	525.00	131.25
Assistant of skilled labor	II	0.25	462.50	115.63
Total of labor				C: 337.32

DIRECT COSTS (A+B+C)

1935.23

INDIRECT COSTS 25%

483.81

UNIT PRICES

2419.04

REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Fiber Cement Sheet Ceiling, 6 mm, including suspension system
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /34

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Fiber Cement Sheet	M2	1.00	14441.63	14441.63
T metal frame, white	U	1.00	2430.00	2430.00
screws	U	0.25	117.00	29.25
Total of materials			A:	16900.88

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.46	120.00	175.20
Total of machinery and tools			B: 175.20

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	0.36	695.75	250.47
Skilled labor	III	0.73	525.00	383.25
Total of labor			C:	633.72

DIRECT COSTS (A+B+C) 17709.80
 INDIRECT COSTS 25% 4427.45
 UNIT PRICES 22137.25

REMARKS: The transport is included in the materials

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Acoustic Rockwool Tile Ceiling, 12 mm thick/suspension system
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /35

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
P/GYPSON Ceiling	U	1.00	25515.00	25515.00
T. Shape metal frame, white screws	U	0.36	1215.00	437.40
	U	10.00	117.00	1170.00
Total of materials			A:	27122.40

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.46	120.00	175.20
Total of machinery and tools			B: 175.20

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	0.36	695.75	250.47
Skilled labor	III	0.75	525.00	393.75
Total of labor			C:	644.22

DIRECT COSTS (A+B+C) 27941.82

INDIRECT COSTS 25% 6985.46

UNIT PRICES 34927.28

REMARKS: Transport is included in the materials

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Acid Proof Asphalt Block to Floor of Battery Room
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /36

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Vinyl, 3,2 mm	M2	1.05	32076.00	33679.80
Asphalt adhesive	GALON	0.06	14404.50	864.27
Total of materials			A:	34544.07

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.14	120.00	136.80
Total of machinery and tools			B: 136.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	0.29	695.75	201.77
Skilled labor	III	0.57	525.00	299.25
Assistant of skilled labor	II	0.57	462.50	263.63
Total of labor			C:	764.64

DIRECT COSTS (A+B+C)	35445.51
INDIRECT COSTS 25%	8861.38
UNIT PRICES	44306.89

REMARKS: The transport is included in the cost of materials

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Oil Paint on Metal Surfaces
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /37

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Oil paint	GALON	0.04	45144.00	1805.76
Thinner	GALON	0.01	11880.00	118.80
Sandpaper "0"	HOJA	0.13	1215.00	157.95
Total of materials				A: 2082.51

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	0.46	120.00	55.20
Total of machinery and tools			B: 55.20

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	0.11	695.75	76.53
Skilled labor	III	0.23	525.00	120.75
Assistant of skilled labor	II	0.23	462.50	106.38
Total of labor				C: 303.66

DIRECT COSTS (A+B+C)

2441.37

INDIRECT COSTS 25%

610.34

UNIT PRICES

3051.71

REMARKS:

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Vinyl Emulsion Paint Applied to Sheet Ceiling, Wall, Skirting
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /38

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Vinyl Paint	GALON	0.05	77220.00	3861.00
Plaster "Cuenca"	KG	0.01	594.00	5.94
Sludge	KG	0.03	1118.00	33.54
Sandpaper "0"	HIOJA	0.25	1215.00	303.75
Total of materials			A:	4204.23

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	0.46	120.00	55.20
Total of machinery and tools			B: 55.20

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	0.11	695.75	76.53
Skilled labor	III	0.23	525.00	120.75
Assistant of skilled labor	II	0.23	462.50	106.38
Total of labor			C:	303.66

DIRECT COSTS (A+B+C)

4563.09

INDIRECT COSTS 25%

1140.77

UNIT PRICES

5703.86

REMARKS: The transport is considered in the materials

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Acid Proof Paint Applied to Cement Mortar P. Wall
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /39

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Vinyl Paint	GALON	0.05	77220.00	3861.00
Plaster "Cuenca"	KG	0.01	594.00	5.94
Sludge	KG	0.03	1118.00	33.54
Sandpaper "0"	HOJA	0.25	1215.00	303.75
Total of materials			A:	4204.23

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	0.46	120.0	55.20
Total of machinery and tools			B: 55.20

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	0.11	695.75	76.53
Skilled labor	III	0.23	525.00	120.75
Assistant of skilled labor	II	0.23	462.50	106.38
Total of labor			C:	303.66

DIRECT COSTS (A+B+C)

4563.09

INDIRECT COSTS 25%

1140.77

UNIT PRICES

5703.86

REMARKS: The transport is considered in the materials

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Wooden Doors and Frames Including required Hardware and accessories
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: each
 ITEM: /40

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Ready made door	M2	1.89	140035.50	264667.10
Wooden frames	M2	5.10	47278.35	241119.59
Hinges	U	3.00	9599.85	28799.55
Screws	U	0.02	117.00	2.34
Latch	U	1.00	1719.00	1719.00
Lock	U	1.00	132975.00	132975.00
Total of materials			A:	669282.57

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34		0.00
Total of machinery and tools			B: 0.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	1.40	695.75	974.05
Mason	III	0.70	525.00	367.50
Skilled labor	III	0.23	525.00	120.75
Assistant of skilled labor	II	0.23	462.50	106.38
Total of labor			C:	1568.68

DIRECT COSTS (A+B+C)	670851.25
INDIRECT COSTS 25%	167712.81
UNIT PRICES	838564.06
REMARKS: The transport is considered in the materials	838564.06/6.99
	= 119966.24

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Cupboard and Shelf
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: ml
 ITEM: /41

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Wooden appliance	ML	1.01	225000.00	227250.00
Total of materials			A:	227250.00

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	2.00	120.00	240.00
Total of machinery and tools			B: 240.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	0.50	695.75	347.88
Skilled labor	III	1.00	525.00	525.00
Assistant of skilled labor	II	1.00	462.50	462.50
Total of labor			C:	1335.38

DIRECT COSTS (A+B+C)	228825.38
INDIRECT COSTS 25%	57206.34
UNIT PRICES	286031.72
REMARKS: The transport is considered in the materials	286031.72*1.5n
	= 429048

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Blind Box
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: ml
 ITEM: /42

A. MATERIALS	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
DESCRIPTION				
Wooden appliance (multiple x height)	ML	1.01	19125.00	193162.50
Total of materials			A:	193162.50

B. MACHINERY AND TOOLS	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
DESCRIPTION			
Minor tools	2.00	120.00	240.00
Total of machinery and tools			B: 240.00

C. LABOR	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
DESCRIPTION				
Master Workman	V	0.50	695.75	347.88
Skilled labor	III	1.00	525.00	525.00
Assistant of skilled labor	II	1.00	462.50	462.50
Total of labor			C:	1335.38

DIRECT COSTS (A+B+C)	194737.88
INDIRECT COSTS 25%	48684.47
UNIT PRICES	243422.34

REMARKS: The transport is considered in the materials

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Steel Door and Louver, Including Frames, Hardware, Accessories, Caulking
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: each
 ITEM: /43

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Ready made metal door	U	1.00	212895.00	212895.00
Metal frames	ML	5.10	33853.15	172651.07
Hinges	U	3.00	9119.25	27357.75
Weld	KG	0.05	35000.00	1750.00
Screws	U	9.00	117.00	1750.00
Latch	U	1.00	1719.00	1053.00
Lock	U	1.00	132975.00	1719.00
Putty	KG	2.50	7782.75	132975.00
Total of materials				A: 569857.69

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.34	120.00	160.80
Total of machinery and tools			B: 160.80

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	1.40	695.75	974.05
Mason	III	0.70	525.00	367.50
Skilled labor	III	0.70		0.00
Assistant of skilled labor	II	0.70	462.50	323.75
Total of labor				C: 1665.30

DIRECT COSTS (A+B+C)

571683.79

INDIRECT COSTS 25%

142920.95

UNIT PRICES

714604.74

REMARKS: The transport is considered in the materials

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Motor Driven Rolling Shutter, Including Rails, Hardware and Accessories
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: each
 ITEM: /44

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Rolling Shutter of galvanized metal 0,8	M2	30.00	109875.15	3296254.50
Motor after specifications	U	1.00	1350000.00	1350000.00
Rails	ML	12.00	42533.10	510397.20
Weld	KG	0.50	35000.00	17500.00
Lock	U	1.00	132975.00	132975.00
Putty	KG	10.00	7782.75	77827.50
Steel angle bar 40 x 5 mm	ML	10.00	5507.78	55077.80
Total of materials			A:	5440032.00

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.50	120.00	180.00
Welder	2.50	6570.00	16425.00
Total of machinery and tools			B: 16605.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	1.50	695.75	1043.63
Mason	III	1.50	525.00	787.50
Skilled labor	III	2.50	525.00	1312.50
Assistant of skilled labor	II	2.50		0.00
Total of labor			C:	3143.63

DIRECT COSTS (A+B+C) 5459780.63
 INDIRECT COSTS 25% 1364945.16
 UNIT PRICES 6824725.78

REMARKS: The transport is considered in the materials

UNIT PRICE ANALYSIS

PROJECT:

DATE: 20-x-94

ITEM N°: Aluminum Door Leaves and Frames, Including Frame, Hardware,

Unit: m²

Accessories

SPECIFICATIONS:

ITEM: /45

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Aluminum Door Leaves	M2	1.00	249750.00	249750.00
Aluminum for frame	ML	4.00	113400.00	453600.00
Glass, 6mm	M2	1.00	29967.30	29967.30
Screws	U	40.00	117.00	4680.00
Hinges	U	6.00	9119.25	54715.50
Swing Arm-Spring door shutter	U	2.00	87945.75	175891.50
Rivets	KG	0.05	17820.00	891.00
Putty	KG	2.20	7782.75	17122.05
Total of materials				A: 986617.35

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.75	120.00	210.00
Total of machinery and tools			B: 210.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	1.50	695.75	1043.63
Mason	III	1.50	525.00	787.50
Skilled labor	III	1.30	525.00	682.50
Assistant of skilled labor	II	1.30	462.50	601.25
Total of labor				C: 3114.88

DIRECT COSTS (A+B+C)

989942.23

INDIRECT COSTS 25%

247485.56

UNIT PRICES

1237427.78

REMARKS: The transport is considered in the materials

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Aluminum Window and Frame, Including Hardware and Accessories
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /46

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Aluminum window	M2	1.00	91800.00	91800.00
Aluminum for window frame	ML	4.00	113400.00	453600.00
Glass, 6 mm	M2	1.00	29967.30	29967.30
Screws	U	8.00	117.00	936.00
Hinges	U	2.00	9119.25	18238.50
Rivets	KG	0.01	17820.00	178.20
Putty	KG	2.00	7782.75	15565.50
Natural collapsible latch	U	1.00	2651.40	2651.40
Total of materials			A:	612936.90

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	1.20	120.00	144.00
Total of machinery and tools			B: 144.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	0.70	695.75	487.03
Mason	III	0.70	525.00	367.50
Skilled labor	III	1.14	525.00	398.50
Assistant of skilled labor	II	1.14	462.50	527.25
Total of labor			C:	1980.28

DIRECT COSTS (A+B+C)	615061.18
INDIRECT COSTS 25%	153765.29
UNIT PRICES	768826.47

REMARKS: The transport is considered in the materials

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Aluminum Louvers and Frames, Including, Hardware and Accessories
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /47

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Aluminum louvers	M2	0.25	65580.00	16395.00
Aluminum for frame	ML	2.00	113400.00	226800.00
Screws	U	8.00	117.00	936.00
Natural collapsible latch	U	1.00	2651.40	2651.40
Clips for louvers/ aluminum made	PAR	1.00	426.60	426.60
Rivets	KG	0.01	17820.00	178.20
Putty	KG	0.50	7782.75	3891.38
Total of materials				A: 251278.58

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	0.50	120.00	60.00
Total of machinery and tools			B: 60.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Master Workman	V	0.25	695.75	173.94
Mason	III	0.25	525.00	131.25
Skilled labor	III	0.75	525.00	393.75
Assistant of skilled labor	II	0.75	462.50	346.88
Total of labor				C: 1045.81

DIRECT COSTS (A+B+C)

252384.39

INDIRECT COSTS 25%

63096.10

UNIT PRICES

315480.48

REMARKS: The transport is considered in the materials

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Figured Sheet Glass 4mm th. Including Glazing Bead
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /49

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Aluminum window	M2	1.00	18562.50	18562.50
Glazing bead	ML	4.00	570.00	2280.00
Total of materials			A:	20842.50

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	0.50	120.00	60.00
Total of machinery and tools			B: 60.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Skilled labor	III	0.75	525.00	393.75
Assistant of skilled labor	II	0.75	462.50	346.88
Total of labor			C:	740.63

DIRECT COSTS (A+B+C)	21643.13
INDIRECT COSTS 25%	5410.78
UNIT PRICES	27053.91

REMARKS: The transport is considered in the materials

UNIT PRICE ANALYSIS

PROJECT:
 ITEM N°: Clear sheet Glass, 6 mm thick
 SPECIFICATIONS:

DATE: 20-x-94
 Unit: m²
 ITEM: /50

A. MATERIALS

DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	SUBTOTAL
Glass, 6 mm	M2	1.00	29967.30	29967.30
Total of materials			A:	29967.30

B. MACHINERY AND TOOLS

DESCRIPTION	EQUIPMENT-HOURS	COST PER HOUR	SUBTOTAL
Minor tools	0.50	120.00	60.00
Total of machinery and tools			B: 60.00

C. LABOR

DESCRIPTION	CATEGORY	MAN-HOURS	COST/HOUR	SUBTOTAL
Skilled labor	III	0.75	525.00	393.75
Assistant of skilled labor	II	0.75	462.50	346.88
Total of labor			C:	740.63

DIRECT COSTS (A+B+C)	30767.93
INDIRECT COSTS 25%	7691.98
UNIT PRICES	38459.91

REMARKS: The transport is considered in the materials