Shahid Lakhan Rural Municipality

Office of Rural Municipal Executive

Ghairung Gorkha

Preliminary Cost Estimate

Project Name:Dhadbari Lifting Water supply Scheme

Location. Shahid Lakhan-2, Mankamana

F:Y:076/77

Shahid Lakhan Rural Municipality
Ghairung, Gorkha

Detailed Estinate Report

Project Name: Dhadbari Lifting Water supply Scheme

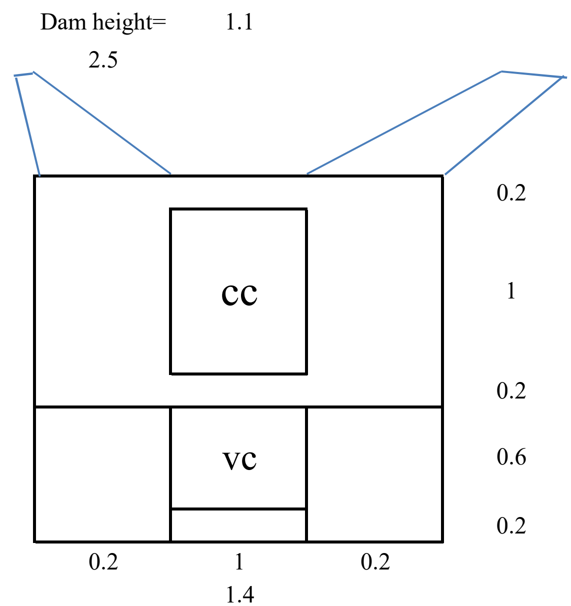
Palace: Shahid Lakhan-2, Mankamana **Fiscal Year 2076/77**

S.N	Description	No	Length	Breadth	Height	Quantity	Unit	Rate	Amount	Remarks
1	**Procurements of Pipelines**									
	20mm Dia/ 10 Kg/cm2 HDPE Pipe	1	550.00			550.00	M	52.45	28,847.50	
	32mm Dia/ 6 Kg/cm2 HDPE Pipe	1	2500.00			2500.00	M	86.68	216,700.00	
	40mm Dia/ 6 Kg/cm2 HDPE Pipe	1	1500.00			1500.00	M	135.99	203,985.00	
	50mm Dia/ 6 Kg/cm2 HDPE Pipe	1	600.00			600.00	M	210.60	126,360.00	
	75mm Dia/ 6 Kg/cm2 HDPE Pipe	1	2000.00			2000.00	M	462.77	925,540.00	
2	**Settling Basin**	1	3.00	2.50	2.00	15.00	M	113282.70	113,282.70	
3	**Taps**	160				135.00	Job	21914.57	21,914.57	
4	**Distribution Tank**	1				1.00	No	99078.99	99,078.99	
5	**Power House**	1				1.00	Job	563179.70	563,179.70	
6	**RCC 100M3 Tank**	2				2.00	Job	1564087.87	3,128,175.74	
7	**Intake Works**	1				1.00	Cum	49184.30	49,184.30	
8	**Transportation of Pipes**	1				1.00	LS	40000.00	40,000.00	
9	**Earthwork Excavation and filling in hard soil**	1	5500.00	0.45	0.45	1113.75	Cum	576.80	642,411.00	
10	**Fittings**							100000.00	100,000.00	
11	**Procurement of plumbing material and fitting works**	1				1.00		2417789.32	2,417,789.32	
12	**Fencing Works**	1				200.00	M	3298.06	659,612.00	
13	**RCC column**	100				100.00	No	6554.66	655,466.00	
14	**Electrical Works all complete**	1				1.00	Job	1015000.00	1,015,000.00	
	Total Cost								**11,006,526.82**	

Prepared By :- Checked By :- Approved By :-

COST ESTIMATES OF RCC INTAKE WITH COLLECTION CHAMBER

Project Name:Dhadbari Lifting Water supply Scheme



Wall Height= 0.90 | Wall Thickness of CC = 0.15

Wall thickness of Dam= 0.2 | Dam length = 2.95

S N	Description of work	No	L (m)	B (m)	H (m)	QNTTY	Unit	Rate Rs	Amount Rs	norms no.
1	Site Clearance	1				1	job	1000	1000.00	LS
2	Excavation work in GBM soils									
	Dam weith catchment	1	2.95	0.00	0.90	0.00				
	Collection chamber	1	2.60	1.40	0.90	3.28				
	washout pipe trench	1	0.00	0.45	0.60	0.00				
						3.28	m^3	576.80	1891.90	2.14
3	Boulder Soling									
	Collection chamber	1	2.60	1.40	0.15	0.55				
						0.550	m^3	3224.45	1773.45	6.5b
4	PCC in (1:2:4) for									
	Catchment portion	1	2.60	1.40	0.10	0.36				
						0.360	m^3	15504.60	5581.66	7.2d
5	RCC in (1:2:4) for									
	Dam	1	2.95	0.20	0.90	0.531				
	C/C foundation	1	2.60	1.40	0.15	0.546				
	Wall portion of C/C	2	2.60	0.15	0.90	0.702				
	"	2	1.00	0.15	0.90	0.270				
	Slab portion of C/C	1	2.60	1.40	0.10	0.364				
						2.413	m^3	20835.52	50276.11	7.4a
6	MS bar for RCC works for				kg/m					
	Dam - 10r	33	0.90		0.62	18.414				
	10mm ϕ horizontal bars	10	2.6		0.62	16.120				
	Base of C/C-	8	2.60		0.62	12.896				
	"	0	1.40		0.62	0.000				
	Wall of C/C- 10 r	29	0.90		0.62	16.182				
	" " "	10	0.90		0.62	5.580				
	'10 mn	10	2.60		0.62	16.120				
	"	10	1.00		0.62	6.200				
	Slab-	0	1.40		0.62	0.000				
	10 mm ϕ bars	8	2.60		0.62	12.896				

COST ESTIMATES OF RCC INTAKE WITH COLLECTION CHAMBER

Project Name:Dhadbari Lifting Water supply Scheme

Dam height= 1.1
2.5

Wall Height= 0.90
Wall thickness of Dam= 0.2

Wall Thickness of CC = 0.15
Dam length = 2.95

						104.408	Kg	184.44	19257.01	7.5
7	Formwork for concreting work for									
	Dam	2	2.95	0.90		5.310				
	C/C wall portion inside	1	4.00		0.90	3.600				
		1	3.20		0.90	2.880				
	C/C wall portion outside	1	2.80		0.90	2.520				
	Slab bottom	1	1.00		1.00	1.000				
	"	1	1.00		1.00	1.000				
	Sides of slab	1	2.8		0.10	0.280				
						16.590	m^2	816.02	13537.77	8.2a
8	12.5mm plaster in 1:3 c/s mortar for									
	Dam	2	2.95		0.90	5.310				
	Top of dam	1	2.95		0.20	0.590				
	Floor portin of C/C	1	1.00	1.00		1.00				
	Wall portion of C/C	2	4.00		0.90	7.20				
	Outside of C/C	1	2.80		0.90	2.52				
						16.620	m^2	382.93	6364.30	12.1b
9	3mm punning with 1:1 c/s mortar									
	Dam	1	2.95		0.90	2.655				
	Floor portin of C/C	1	1.00	1.00		1.00				
	Wall portion of C/C	1	4.00		0.90	3.60				
						7.26	m^2	277.56	2015.09	11.20
12	Installation of Pipes & fittings					1	Job	3000.00	3000.00	ls
13	60 cm ϕ Manhole cov procuring, fixing at place,	2				2	set	3500.00	7000.00	mh60
	Total Basic Cost								**111697.29**	

COST ESTIMATES OF BARBED FENCING WITH MS ANGLE POLES (TYPE-1)

Project Name:Dhadbari Lifting Water supply Scheme

Fencing length (m) : **200** Spacing of Poles (m): **1.5**

S N	DESCRIPTION	No	L (m)	B (m)	H (m)	QUANTT	Unit	Rate Rs	Amount Rs	norms no.
1	Site Clearance	1	200.00	1.00		200.00	m^2	95.58	19116.00	1.8
2	E/W in excavation in GBM s	135	0.35	0.35	0.60	9.92	m^3	576.80	5721.86	2.14
3	Boulder soling	135	0.35	0.35	0.10	1.65	m^3	3224.45	5320.34	6.5b
4	PCC (1:2:4) for anchor block	135	0.35	0.35	0.90	14.88	m^3	15504.60	230708.45	7.2d
6	MS Angle poles (ISA 40x40x	135	2.50	@ 6.58 kg/m		2119.50	kg	130.00	275535.00	isa406
7	Barbed wire fencing to Angle poles									
	horizontals	938	1.50			1407.00				
	diagonals	268	2.12			568.16				
						1975.16	m	62.38	123210.48	24.7
	Total Basic Cost of Fencing								**659612.13**	
	Basic Rate/metre of fencing								**3298.06**	

ANGLE POLE WITH GRILL GATE FOR FENCE

S N	DESCRIPTION	No	L (m)	B (m)	H (m)	QUANTT	Unit	Rate Rs	Amount Rs	norms no.
1	E/W in excavation in hard so	2	0.60	0.60	0.50	0.36	m^3	576.80	207.65	2.12
2	PCC (1:2:4) for anchor block	2	0.25	0.25	0.45	0.06	m^3	15504.60	930.28	7.2d
3	MS Angle poles (ISA 40x40x6) with welding & fixing of holdfast	2	2.50	@ 6.28 kg/m		31.40	kg	184.44	5791.42	isa406
4	25x25x3 Angle framed gate with all complete grill shutter (0.95x1.5m)	1				25	Kg	130.00	3250.00	gril
	Total Basic Cost								**10179.35**	

PCC BLOCK PIPE ANCHORAGE

Project Name:Dhadbari Lifting Water supply Scheme

S N	DESCRIPTION	No	L (m)	B (m)	H (m)	QNTT	UNIT	RATE Rs	AMOUNT Rs	norms no.
1	Excavation in GBM soils	1	0.60	0.60	0.30	0.11	m³	576.80	63.45	2.14
2	Boulder soling									
		1	0.6	0.6	0.15	0.05				
						0.05	m³	3224.45	161.22	6.5b
3	MS Rod (12 mm dia.)	4	1.50	0.89	kg/m	5.34	kg	184.44	984.91	7.5
4	PCC (1:2:4) blocks	1	0.50	0.50	1.25	0.31	m³	17242.19	5345.08	7.2d
	Total Basic Cost								**6554.66**	

COST ESTIMATES FOR ELECTRIFICATION WORKS

Project Name:Dhadbari Lifting Water supply Scheme

S. No.	Description	Unit	Qty	Unit Rate	Ammount Rs.	Remarks Norms No
C	**Electro-Mechanical work**					
1	Supply of Submersible pump (20 HP,35stage) with all acessories	set	2	400000.00	800000.00	
8	Transportation & installation of generator with necessary equipment & accessories	Job	1	45000.00	45000.00	
	Sub - Total for 1 Pump Station				**1015000.00**	
	Total Cost				**1065000.00**	

Quantity Estimate & Abstract of Cost

Distribution Chamber = 2.00 m^3

1.40 1.40 1.10 2.16

S.N.	Description	No.	Length	Breadth	Height	Quantity	Unit	Rate	Amount
1	**Earth work excavation in Hard soil -**								
		1	3.30	3.30	1.50	16.34			
	Sub -total					**16.34**	**m^3**	**576.80**	**9,424.91**
2	**Dry stone solling**								
		1	2.50	2.50	0.20	1.25			
	Sub -total					**1.25**	**m^3**	**3224.45**	**4,030.56**
3	**1:2:4 PCC in**								
	at base	1	2.50	2.50	0.10	0.63			
	Sub -total					**0.63**	**m^3**	**17242.19**	**10,862.58**
4	**Stone cement masonry work in 1:4 C/S -**								
	Long Wall	2	2.30	0.45	1.10	2.28			
	Short Wall	2	1.40	0.45	1.10	1.39			
	Sub -total					**3.67**	**m^3**	**10576.00**	**38,813.92**
5	**12.5mm 1:4 C/S Plaster**								
	Floor	1	1.40	1.40		1.96			
	in Inside wall total	1	5.60		1.10	6.16			
	in Outside wall total 4 face	1	7.20		1.10	7.92			
	wall top	1	7.20	0.45		3.24			
	Sub -total					**19.3**	**m^2**	**382.93**	**7,390.55**
6	1:2:4 PCC For RCC slab	1	2.30	2.30	0.10	**0.53**			
	Sub -total					**0.53**	m3	**17,242.19**	**9,138.36**
7	Reinforcement for RCC work	No.	Length	T Length	kg/m	kg			
	10 mm Dia	48	2.30	110.4	0.62				
	Sub-Total			**110.4**	**0.62**	**68.45**	**Kg**	**184.44**	**12,624.92**
8	Form work for PCC/RCC	1	1.40	1.40		**1.96**	m2	816.02	**1599.40**
9	3mm 1:1 C/S Punning -								
	in Floor	1	1.40	1.40		1.96			
	in Inside wall total	1	5.60		1.10	6.16			
	Sub total of Punning					**8.12**	m2	277.56	2253.7872
10	Installation of Pipe and Fittings with threading		mason			**3.00**	md	980.00	**2940.00**
	Total Cost								**99,078.99**

Detailed Estimate
Construction of public Taps

Project Name: Dhadbari Lifting Water supply Scheme

S.N	Description	No	Length	Breadth	Height	Quantity	Unit	Rate	Amount	Remarks
1	;fx|f] k|sf/sf] df6f]df hu vGg] sfd									
a	kn]6 km{ddf		1.65	1.95	0.35	1.13				
b	jf;cfp6		4.0	0.35	0.50	0.70				
	hDdf					**1.83**	**3=ld=**	**576.80**	**1055.54**	
2	9'+uf ;f]nLª ug]]{ sfd		1.65	1.95	0.20	0.64	**3=ld=**	**3224.45**	**2063.65**	
3	!M@M$ sf] l;d]G6 d;nfn] lk=l;=l;=ug]{ sfd									
	e"Odf		1.65	1.75	0.1	0.29				
	lsgf/fdf		4.05	0.1	0.10	0.04				
	jfndflysf] ;a}		1.65	0.45	0.05	0.04				
	hDdf					**0.37**	**3=ld=**	**17242.19**	**6379.61**	
4	9'Ëfsf] uf/f] l;d]G6 d;nf -!M$_ df nufpg] sfd									
	8f]sf] /fVg] jfn		1.65	0.45	0.60	0.45				
	kf]i6df		0.35	0.45	1.0	0.16				
	hDdf					**0.61**	**3=ld=**	**10576.00**	**6451.36**	
5	!@=% dL=dL= l;d]G6 afn'jf -!M$_ Knfi6/									
	kn]6 km{ddf		1.65	1.3		2.14				
	jfndflysf] ;a}		1.65		2.15	3.47				
	lsgf/fdf b'a}] efudf		4.05		0.10	0.41				
			1.6		1.0	1.60				
	hDdf					**7.62**	**j=ld=**	**382.93**	**2917.9266**	
6	# dL=dL= df]6fO{ d;Lgf] l;d]G6l;d]G6 afn'jf -!M!_df 3f]6\g] sfd									
	jfndfly		1.65		0.45	0.74				
	jfnsf] cufl8sf] efudf		1.65		0.65	1.07				
	kf]i6s rf/ efudf		1.6		1	1.60				
	hDdf					**3.41**	**j=ld=**	**277.56**	**946.48**	
7	dflg;å/f kfO{ksf] u'gf sf6\g] / hf]8g] sfd					3.00	Dof;g	700.0	2100.0	
	s"n hDdf								21914.57	

Estimated by :-　　　　Checked by :-　　　　Approved by :-

Detailed Estimate

Project Name: Dhadbari Lifting Water supply Scheme

Intake

Palace: Shahid Lakhan-2, Mankamana

S.N	Description	No	Length	Breadth	Height	Quantity	Unit	Rate	Amount	Remarks
1	**Earthwork Excavationin hard Soil**									
			3.00	2.50	1.50	11.25				
	Total					**11.25**	**m3**	**576.80**	**6,489.00**	
2	**Stone Soling Works**		2.00	1.80	0.15	**0.54**	m3	**3224.45**	**1,741.20**	
3	**PCC works 1:2:4 ratio**									
	Tintake Floor		2.00	1.80	0.08	0.29			-	
	Slab Cover		1.80	1.60	0.08	0.23				
	Total					**0.52**	m3	**17242.19**	**8,965.94**	
4	Stone Masonary in 1:4 C/S mortar								-	
	Intake		4.50	0.40	0.90	1.62			-	
	Total					**1.62**	m3	**10576.00**	**17,133.12**	
5	**12.5mm Thick plaster Works**								-	
	Intake floor		1.20	1.20		1.44			-	
	Inside wall		4.50		0.90	4.05			-	
	Outside wall		5.10		0.90	4.59			-	
	Total					**10.08**	m2	**382.93**	**3,859.93**	
6	Filling with boulder works		1.20	1.20	0.80	**1.15**	m3	3,224.45	**3,708.12**	
7	3mm thick 1:1 cement sand punning works									
	Intake floor	1	1.20	1.20		1.44				
	Inside wall	1	3.00		0.80	2.40				
	Total	**Nos**				**3.84**	m2	277.56	**1065.83**	
8	10mm dia Rebar		**L**	**T.L**	**kg/m**					
		17.00	1.60	27.2						
		17.00	1.60	27.2						
	Total			54.4	0.62	**33.73**	Kg	184.44	**6221.16**	
Total Cost of Intake Construction									**49,184.30**	

Prepared By :- Checked By :- Approved By :-

COST ESTIMATE OF CHAUKIDAR QURTER

Project Name:Dhadbari Lifting Water supply Scheme

S N	Description of work	No	L (m)	B (m)	H (m)	QNTTY	Unit	Rate Rs	Amount Rs	norms no.
1	Site clearance0	1.00	3.00	3.00		9.00	job	95.58	860.22	1.80
2	E/W excavation for foundation in GBM soils									
	Long walls of pumphouse	2.00	5.50	0.60	0.60	3.96				
	Short walls 1 "	2.00	3.20	0.60	0.60	2.30				
	Short walls 2 "	1.00	2.00	0.60	0.60	0.72				
						6.98	m³	949.87	6630.09	2.14
3	Boulder soling									
	Long walls of pumphouse	2.00	5.50	0.60	0.20	1.32				
	Short walls 1 "	2.00	3.20	0.60	0.20	0.77				
	Short walls 2 "	1.00	2.00	0.60	0.20	0.24				
	Floor	1.00	3.00	2.50	0.20	1.50				
						3.83	m³	6818.42	26114.55	6.5b
4	Plain Cement Concrete in (1:2:4)									
	Long walls of pumphouse	2.00	5.50	0.60	0.10	0.66				
	Short walls 1 "	2.00	3.20	0.60	0.10	0.38				
	Short walls 2 "	1.00	2.00	0.60	0.10	0.12				
	Floor	1.00	3.00	2.50	0.10	0.75				
	Plinth beam	1.00	12.60	0.50	0.20	1.26				
	Lintel	3.00	1.30	0.40	0.20	0.31				
	For slab	1.00	4.40	3.90	0.10	1.72				
						5.20	m³	19258.52	100144.30	7.2d
5	Stone masonry in (1:4) cement mortar									
	Upto Plinth									
	Long walls of pumphouse	2.00	5.50	0.50	0.50	2.75				
	Short walls 1 "	2.00	3.20	0.50	0.50	1.60				
	Short walls 2 "	1.00	2.00	0.60	0.50	0.60				
	Super structure									
	Long walls of pumphouse	2.00	5.30	0.40	2.50	10.60				
	Short walls 1 "	2.00	3.40	0.40	2.50	6.80				
	Deduction									
	Door	1.00	1.00	0.40	1.90	-0.76				
	Window	1.00	1.20	0.40	1.00	-0.48				
	Lintel	3.00	1.30	0.40	0.20	-0.31				
						20.80	m³	14247.81	296354.45	6.1b
6	Centering & Shuttering works for PCC									
	Plinth beam	2.00	12.60		0.20	5.04				
	Lintel	6.00	1.30		0.20	1.56				
	Slab bottom of Pumpho	1.00	3.00		2.50	7.50				
	Slab sides	1.00	15.40		0.60	9.24				
						23.34	m²	805.29	18795.47	8.2a
7	20mm thick (1:4) c/s plaster									
	Upto plinth outside wall	1.00	10.70		0.60	6.42				
	Outside wall	1.00	14.20		2.50	35.50				
	Inside wall	1.00	11.00		2.50	27.50				
	Floor	1.00	3.00		2.50	7.50				
	Deduction									

COST ESTIMATE OF CHAUKIDAR QURTER

Project Name:Dhadbari Lifting Water supply Scheme

SN	Description of work	No	L (m)	B (m)	H (m)	QNTTY	Unit	Rate Rs	Amount Rs	norms no.
	Door	1.00	1.90		1.00	-1.90				
	Window	1.00	1.00		1.20	-1.20				
						73.82	m²	553.43	40854.20	12.4b
8	12.5mm thick (1:3) c/s plaster									
	Ceilling	1.00	3.00		2.50	7.50				
	Projected portion of slab	1.00	15.40		0.60	9.24				
						16.74	m²	411.35	6886.00	12.1b
9	2-coats snowcem (cement) paint									
	Outside wall	1.00	14.20		2.50	35.50				
	Inside wall	1.00	11.00		2.50	27.50				
	Ceilling	1.00	3.00		2.50	7.50				
		1.00	1.20		1.00	1.20				
	Projected portion of slab	1.00	15.40		0.60	9.24				
	Deduction									
	Door	1.00	1.90		1.00	-1.90				
	Window	1.00	1.00		1.20	-1.20				
						77.84	m²	100.63	7833.04	13.4b
10	MS bar									
	Plinth beam									
	10 mm dia. main bar	4.00	11.80	0.60	kg/m	28.32				
	6 mm dia. stirrups	59.00	1.20	0.20	kg/m	14.16				
	Slab									
	10 mm dia. main bar	26.00	4.40	0.60	kg/m	68.64				
		29.33	3.90	0.60	kg/m	68.63				
	Linterl	12.00	1.30	0.60	kg/m	9.36				
						189.11	m²	99.55	18825.90	7.50
11	Salwood for chaukhat									
	Door	1.00	4.70	0.10	0.10	0.05				
	Window	1.00	4.40	0.10	0.10	0.04				
						0.09	m²	194709.39	17523.85	10.1a
12	Woodwork for pannelled shutter									
	Door	1.00	1.80		0.72	1.30				
	Window	1.00	1.02		0.82	0.84				
						2.14	m²	10276.87	21992.50	10.2b
13	2-coats ready enamel paint		2 times of shutter area			4.28	m²	85.31	365.13	13.5c
	Total Basic Cost								**563179.70**	

Detailed Estimate

Project Name: Dhadbari Lifting Water supply Scheme

Sedimentation Tank

Palace: Shahid Lakhan-2, Mankamana

S.N	Description	No	Length	Breadth	Height	Quantity	Unit	Rate	Amount	Remarks
1	E/W excavation for foundation in GBM soils									
			3.00	2.50	2.00	15.00				
	Total					**15.00**	**m3**	**576.80**	**8,652.00**	
2	**Stone Soling Works**		3.00	2.50	0.15	**1.13**	m3	**3224.45**	**3,643.63**	
3	**PCC works 1:2:4 ratio**									
	Tintake Floor		3.00	2.50	0.08	0.60			-	
	Slab Cover		3.00	2.50	0.10	0.75				
	Total					**1.35**	m3	**17242.19**	**23,276.96**	
4	Stone Masonary in 1:4 C/S mortar								-	
	Long Wall	2	4.00	0.50	0.90	1.80			-	
		2	4.00	0.40	1.10	1.76				
	Short wall	2	1.50	0.50	0.90	0.68				
		2	1.50	0.40	1.10	0.66				
	Side wall	1	1.50	0.40	2.00	1.20				
	Total					**6.10**	m3	**10576.00**	**64,513.60**	
5	**12.5mm Thick plaster Works**								-	
	Long Wall	4	2.60		0.90	2.34			-	
		4	2.60		1.10	2.86			-	
	Short wall	4	1.50		0.90	1.35				
		4	1.50		1.10	1.65				
	Side wall	2	1.50		1.50	2.25				
	Total					**10.45**	m2	**382.93**	**4,001.62**	
6	3mm thick 1:1 cement sand punning works									
	Tank Floor	1	2.60	1.50		3.9			-	
	Long Wall	2	2.60		1.10	2.86			-	
		2	2.60		1.10	2.86			-	
	Short wall	2	1.50		1.10	1.65				
		2	1.50		1.10	1.65				
	Side wall	2	1.50		1.50	2.25				
	Total					**15.17**	m2	**0.00**	**-**	
	Total	**Nos**				**6.76**	m2	277.56	**1876.31**	
7	10mm dia Rebar		**L**	**T.L**	**kg/m**					
		20.00	1.60	32						
		20.00	1.60	32						
	Total			64	0.62	**39.68**	Kg	184.44	**7318.58**	
	Total Cost of setelling basin Construction								**113,282.70**	

Prepared By :- Checked By :- Approved By :-

COST ESTIMATES OF RCC RESERVOIR TANK

Project Name: Dhadbari Lifting Water supply Scheme

Palace: Shahid Lakhan-2, Mankamana

S	DESCRIPTION	No	Rad.	L	B	H	QNTTY	Unit	Rate	Amount
N			(m)	(m)	(m)	(m)			Rs	Rs
	Wall Height =	2.0			100				Wall Thickness =	
	Inside Dia. =	5.8		(Gross Volume =		58.9	Cum)		Dome Height =	
1	Site Clearance	1					1	job	5000	5000.00
2	Excavation work in GBM soils									
	VC	1		1.70	1.50	1.30	3.315			
	Tank	1	3.60			2.00	81.430			
	washout pipe trench	1		10.00	0.60	0.90	5.400			
							90.145	m^3	1048.13	94483.68
3	Back filling with loose soils	1				2.00	31.337	m^3	164.80	5164.34
										0.00
4	Boulder Soling with sand									
	VC	1		1.70	1.50	0.15	0.383			
	Tank	1	3.60			0.20	8.143			
	deduction for VC portion	1		1.70	0.40	0.20	-0.136			
							8.390	m^3	11880.08	99673.87
5	RRM in 1:6 c/s mortar in VC	1		3.00	0.35	0.60	0.630	m^3	13338.49	8403.25
6	PCC(1:3:6) work as Lean Concrete for floor	1	3.40			0.10	3.632	m^3	17001.62	61749.88
7	PCC (1:2:4) in RCC components									
	cover slab of VC	1		1.70	1.50	0.08	0.204			
	pipe embedment blocks	2		1.00	0.35	0.20	0.140			
	manhole cover	2	0.30			0.05	0.028			
	deduction for MH opening	1	0.30			0.10	-0.028			
							0.344	m^3	18667.83	6421.73
8	PCC (1:1.5:3) for RCC components									
	Base slab	1	3.40			0.25	9.079			
	Circular wall	1	3.10			2.00	7.791			
	Haunch at base	0.5		16.96	0.20	0.20	0.339			
	Circular dome beam	1		19.48	0.30	0.20	1.169			
	Conical roof slab	1	3.10				6.321			
	Deduction for Manhole cover	1	0.30				-0.057			
							24.643	m^3	24742.86	609738.30
9	Formwork for concreting work									
	bottom of cover slab of VC	1		1.00	0.80		0.800			
	sides of cover slab of VC	1		6.40		0.10	0.640			
	sides of base slab of tank	1	3.40	21.36		0.25	5.341			
	tank walls	2	3.40	21.36		2.00	85.451			
	soffit of conical roof slab	1	2.90				27.831			
	deduction for MH cover	1	0.30				-0.283			
							119.780	m^2	831.44	99589.88
10	Scafolding work						1	job	25000.00	25000.00
	Wall Height =	2.0			0					Wall Thickness =
	Inside Dia. =	5.8		(Gross Volume =		58.9	Cum)			Dome Height =
11	Reinforcement work in RCC components					**kg/m**				
(1)	12mm @ 150 c/c both ways on both faces of b	155		4.35		0.89	598.525			

Project Name: Dhadbari Lifting Water supply Scheme

Palace: Shahid Lakhan-2, Mankamana

S N	DESCRIPTION	No	Rad. (m)	L (m)	B (m)	H (m)	QNTTY	Unit	Rate Rs	Amount Rs
(2)	12mm vertical bars 150c/c b/s upto 1.0m heig	240		1.50		0.89	320.400			
(3)	12mm vertical bars @ 150 c/c b/s for walls-lo	240		2.50		0.89	534.000			
(4)	10mm circular hoop bars @ 150c/c upto 1m h	6		19.48		0.62	72.458			
(5)	10mm inclined bars @ 150 c/c for base haunc	121		0.90		0.62	67.518			
(6)	10mm circular hoop bars @ 150c/c 1m to 3m	6		19.48		0.62	72.458			
(7)	10mm stirrups @150 c/c for circular beam	136		0.80		0.62	67.523			
(8)	10mm bars 8 nos for circular beam	8		20.42		0.62	101.285			
(9)	10mm radial arc bars @ 150 c/c for conical ro	121		3.05		0.62	229.169			
(10)	10mm circular bars @ 160 c/c for conical roof	20		10.68		0.62	132.450			
(11)	10mm Spacer bars(seperators)	54		0.50		0.62	16.740			
(12)	10mm @ 150 c/c both ways for VC	23		1.20		0.62	16.864			
							2229.39	**Kg**	184.44	411188.69
12	12.5mm plaster in 1:2 c/s mortar									
	inner face of tank wall	1	2.90			2.00	36.442			
	floor	1	2.90				26.421			
							62.863	m^2	475.42	29886.33
13	12.5mm outside plaster in 1:4 c/m									
	outer face of tank wall	1	3.30			2.00	41.469			
	conical roof, both faces	2	3.10				63.210			
	deduction for MH opening	2	0.30				-0.565			
							104.114	m^2	417.88	43507.16
14	3mm punning with 1:1 c/s mortar									
	floor portion	1	2.90				26.421			
	inner face of wall	1	2.90			2.00	36.442			
							62.86	m^2	262.24	16484.41
15	Double coat Snowcem paint on exposed surface									
	outer face of wall	1	3.30			0.00	0.000			
	conical roof	1	3.30			1.16	35.630			
							35.630	m^2	107.53	3831.29
16	2 coats bitumen painting over unexposed surface									
	floor portion	1	2.90				26.421			
	inner face of wall	1	2.90			2.00	36.442			
							62.86	m^2	45.32	2848.82
17	Supply and installation of outer and inner steel	1					1	set	10000.00	10000.00
	pipe ladders as directed by site Engineer									
18	Supply and installation of water level indicator	1					1	set	10000.00	10000.00
	as directed by site Engineer									
19	60 cm dia. MS MH cover including procuring	2					2	set	3058.12	6116.24
	transporting and fixing at place,									
20	Installation of Pipe fittings	1					1	job	10000.00	10000.00
21	Construction site cleareance, leak proof test	1					1	job	5000.00	5000.00
	and disinfection of reservoir all complete									
	Total Basic Cost									**1564087.87**

Project Name: Dhadbari Lifting Water supply Scheme

F/Y 2076/77

FITTINGS REQUIRED

S.N.	Descriptions of Works	No.	Length	Breadth	Height	Quantity	Unit	Rate	Amount	Remarks
1	wf/fsf] lkml6ª									
	wf/fsf] lkml6ª									
	GI Pipe 1/2" dia	192	2.5			480.00	m	249.6	119808.0	
	GI Elbow 1/2 " dia	140				140.00	nos	54.6	7644.0	
	GI Socket 1/2" dia	140				140.00	nos	49.3	6902.0	
	Union 1/2 "	410				410.00	nos	272.9	111889.0	
	Brass tap 400 gm	140				140.00	nos	861.6	120624.0	
	Water Flow Meter	135				135.00	nos	1782.5	240637.5	
	Nipple 1/2"@4"	410				410.00	nos	1116.7	457847.0	
	1/2" Gate Valve	135				135.00	nos	58.7	7924.5	
	75x1/2" Schedule HDPE	4				4.00	nos	460.0	1840.0	LS
	50x1/2" Schedule HDPE	40				40.00	nos	431.3	17252.0	LS
	40x1/2" Schedule HDPE	40				40.00	nos	402.5	16100.0	LS
	32x1/2" Schedule HDPE	40				40.00	nos	345.0	13800.0	LS
	25x1/2" Schedule HDPE	15				15.00	nos	249.6	3744.0	LS
2	**Og6]ssf] lkml6ª**									
	Intake									
	GI Pipe 1.5"	1	3.00			3.00	m	220.80	662.40	
	Union 1.5"	5				5.00	nos	342.70	1713.50	
	Flangeset GI/HDPE	2				2.00	m	635.95	1271.90	
	Nipple 1.5"	9				9.00	nos	129.95	1169.55	
	GM Gate valve 1.5"	3				3.00	nos	4851.85	14555.55	
	GI Socket 1.5" dia	3				2.00	nos	175.95	351.90	
	hDdf									
3	**d]gxf]n se/ -^)×^)_+**	2				2	nos	**3500.00**	7000	
4	**;]l8d]G6;g 6]ssf] lkml6ª**									
	GI Pipe 1.5" inlet/outlet over fl	3				3.00	m	631.56	1894.68	
	Gate Valve 1.5"	3				3.00	nos	1512.62	4537.86	
	GI Union 1.5" MC	2				2.00	nos	129.95	259.90	
	Flangeset 1.5" Gi/HDPE OD	1				1.00	nos	635.95	635.95	
	Nipple 2" HC 1.5"	4				4.00	nos	34.50	138.00	
	hDdf									
5	**d]gxf]n se/ -^)×^)_+**	2				2	nos	**4025.00**	8050	
	RVT Fittings									
	GI Pipe 3"	1	2000.00			2000.00	m	428.95	857900	Dist. Rate
	Union 3"	4				1.00	nos	644.00	644	Dist. Rate
	Flangeset GI/HDPE	2				1.00	nos	120.75	120.75	Dist. Rate
	Nipple 3"	7				1.00	nos	117.30	117.3	Dist. Rate
	GM Gate valve 3"	2	0.70			1.40	m	428.95	600.53	Dist. Rate
	GI Socket 3" dia	3				2.00	nos	87.40	174.8	Dist. Rate
	4" Long Nipple 3"	9				9.00	nos	171.35	1542.15	Dist. Rate
	Gate Valve 3"	2				2.00		2371.30	4742.6	Dist. Rate
	GI Pipe1/2" dia	1	6.00			6.00	m	428.95	2573.7	Dist. Rate
	G.I Socket3"	6				6.00	nos	1070.65	6423.9	Dist. Rate
	GI Elbow 3" dia	7				7.00	nos	1641.05	11487.35	Dist. Rate
	3" X 1/2 uneqal TEE	2				2.00	nos	1427.15	2854.3	Dist. Rate
	G.I Socket 1/2"	3				3.00	nos	60.95	182.85	Dist. Rate
	GI Elbow 1/2 " dia	4				4.00	nos	67.85	271.4	Dist. Rate
	1/2" TEE	1				1.00	nos	104.65	104.65	Dist. Rate
	1/2" Union	3				3.00	nos	221.95	665.85	Dist. Rate
	Chin wrench 48" Heavy	2				2.00	nos	12075.00	24150	Dist. Rate
	Pipe Wrench 36" heavy	2				2.00	nos	6900.00	13800	Dist. Rate
	Pipe Wrench 14" heavy	2				2.00	nos	1380.00	2760	Dist. Rate
	Heating Plate 4"	1				1.00	nos	1541.00	1541	Dist. Rate
	Taflon Cloth@1m	1				1.00	nos	4255.00	4255	Dist. Rate
	Taflon Tape	20				20.00	nos	34.50	690	Dist. Rate
	Chain wrench 4 no	1				1.00	nos	3881.25	3881.25	Dist. Rate
	Retch Threader 4"	1				1.00	nos	21850.00	21850	Dist. Rate
6	**d]gxf]n se/ -^)×^)_+**	2				2.00	nos	4025.00	8050	Dist. Rate
	Sub Total								**2139636.57**	
	VAT 13% of Sub Total								**278152.75**	
	Total Amount with VAT								**2417789.32**	

Sahid Lakhan Rural Municipality

Gorkha

RATE ANALYSIS

2075/076

Item		Labour (L)				Materials (M)				Total (L+M)		
SN	Description	Catagory	m.d.	Rate per m.d. Rs.	Cost Rs.	Type	Quantity	Unit Rate, Rs. Including VAT	Cost, Rs. Including VAT	Total Cost, Rs. Including VAT(for UC)	Unit	Norms No. DoLIDAR
a	ordinary soft soil- For 1 m^3	Unskill	0.50	700	350.00	Tools & Plant	3 % of labour cost		10.50	**360.50**		5.2-1.2.2(a)
b	Hard soil- For 1 m^3	Unskill	0.80	700	560.00	Tools & Plant	3 % of labour cost		16.80	**576.80**		5.2-1.2.2(b)
c	Soft Rock- For 1 m^3	Unskill	2.00	700	1400.00	Tools & Plant	3 % of labour cost		42.00	**1442.00**		5.2-1.2.2(c)
d	Medium Rock- For 1 m^3	Unskill	4.00	700	2800.00	Tools & Plant	3 % of labour cost		84.00	**2884.00**		5.2-1.2.2(d)
e	Hard Rock- For 1 m^3	Unskill	17.00	700	11900.00	Tools & Plant	3 % of labour cost		357.00	**12257.00**		5.2-1.2.2(e)
4	**Stone Solling& Leveling**	Unskill	1.25	700	875.00	Tools & Plant	3 % of labour cost		26.25	901.25		
						Blockstone	1.10	2112.00	2323.20	2323.20		
	Total				**875.00**				**2349.45**	**3224.45**		49)17-6
5	**Formworksof Local wood for Beam/Slab**	Skill	0.150	980	147.00	Local Wood	0.0070	71085.60	497.60		m3	U/D+DoLIDAR
	For 1 Sq.m.	Unskill	0.200	700	140.00	Nails	0.25	125.66	31.42		kg	
	Total				**287.00**				**529.02**	**816.02**		**39)9.a**
						Quantity of wood required for 1 sqm formwork = 0.0526 cum.						
						Wood can be used 6 times for the formwork and after then 25% cost						
						of the wood is recovered. So the quantity of wood required for 1 sqm = 0.00658 cum.						
6	**Plain cement concrete work**	Skill	1.00	980	980.00	Cement	0.22	20594	4530.68		MT	
	M10(P.C.C. 1:3:6)	Unskill	4.00	700	2800.00	Agg.40mm	0.65	5694.40	3701.36		cu.m	DoLIDAR
	and wall - For 1 m^3					Agg.20mm	0.24	5694.40	1366.66		cu.m	41.11A.a
						Sand	0.47	4523.20	2125.90		cu.m	
	Total				**3780.00**				**11724.60**	**15504.60**		
7	**Plain cement concrete work**	Skill	1.00	980	980.00	Cement	0.32	20594	6590.08		MT	
	M15(P.C.C. 1:2:4)	Unskill	4.06	700	2842.00	Agg.40mm	0.52	5694	2960.88		cu.m	DoLIDAR
	and wall - For 1 m^3					Agg.20mm	0.22	5694	1252.68		cu.m	41.11A.b
						Agg.10mm	0.11	5694	626.34		cu.m	
						Sand	0.44	4523.20	1990.21		cu.m	
	Total				**3822.00**				**13420.19**	**17242.19**		
8	**Plain cement concrete work**	Skill	1.00	980	980.00	Cement	0.40	20594	8237.60		MT	
	M20(P.C.C. 1:1$^1/_2$:3) in foundation	Unskill	5.12	700	3584.00	Agg.20mm	0.57	5694.00	3245.58		cu.m	DoLIDAR
	and wall - For 1 m^3					Agg.10mm	0.29	5694.00	1651.26		cu.m	41.11B.b
						Sand	0.425	4523.20	1922.36		cu.m	

Item		Labour (L)				Materials (M)				Total (L+M)		
SN	Description	Catagory	m.d.	Rate per m.d. Rs.	Cost Rs.	Type	Quantity	Unit Rate, Rs. Including VAT	Cost, Rs. Including VAT	Total Cost, Rs. Including VAT(for UC)	Unit	Norms No. DoLIDAR
Total					**4564.00**				**15056.80**	**19620.80**		
10	**Stone masonry work in 1:6**	Skill	1.50	980	1470.00	Cement	0.092	20594	1894.65		MT	38-8-A.d
	cement mortar - For 1 m^3	Unskill	3.29	700	2303.00	Sand	0.50	4523	2261.50		cu.m	
						Blockstone	1.00	2112	2112.00		cu.m	
						Bondsotne	0.10	2112	211.20		cu.m	
Total					**3773.00**				**6479.35**	**10252.35**	**cu.m**	
17	**12.5 mm thick cement**	Skill	0.150	980	147.00	Cement	0.00463	20594	95.35		MT	37)7-13.2.b
	plaster in 1:3 cement sand	Unskill	0.135	700	94.50	Sand	0.01380	4523	62.42		cu.m	DoLIDAR
	mortar -For 1 m^2 Total				**241.50**				**157.77**	**399.27**	**m2**	
18	**12.5 mm thick cement**	Skill	0.15	980	147.00	Cement	0.00363	20594	74.76		MT	37)7-13.2.c
	plaster in 1:4 cement sand	Unskill	0.1359	700	95.13	Sand	0.01460	4523	66.04		cu.m	DoLIDAR
	mortar -For 1 m^2 Total				**242.13**				**140.80**	**382.93**		
19	**20 mm thick cement**	Skill	0.14	980	137.20	Cement	0.0081	20594	166.81		MT	Urban Devemt
	plaster in 1:4cement sand	Unskill	0.19	700	133.00	Sand	0.0220	4523	99.51		cu.m	I 4. 12(4)b
	mortar -For 1 m^2 Total				**270.20**				**266.32**	**536.52**		
20	**3 mm thick cement punning**	Skill	0.10	980	98.00	Cement	0.00532	20594	109.56		MT	Urban Devemt
	in 1:1 cement sand mortar -	Unskill	0.10	700	70.00	Sand	-	4523	0.00		cu.m	H20 11-20
	For 1 m^2				**168.00**				**109.56**	**277.56**		
21	**Reinfocement for RCC work**	Skill	7.000	980	6860.00	M.S. Rod	1.05	89411	93882		MT	40.10
	in position and binding of	Unskill	7.000	700	4900.00	Binding wire	10.00	114.84	1148.40		Kg	DoLIDAR
	M.S. rod for R.C.C. works -											
	For 1 M.T.				89411.00				95030	**184441.00**		
For 1 Kg										**184.44**		

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Rate of Materials

F/Y:-2075/076

SN	Particular	Rate for Analysis (VAT+Trans.)	Rate for Analysis (WithTrans.)	Unit Rate	Unit	Vat @ 13%	Unit Weight	Rate/kg/km		Dist Km		Load /Unload	Transportation Cost		Remarks
								Tractor	Porter	Tractor	Porter		Tractor	Porter	
1	Skill Labour	980.00	980.00	980.00	md										
2	Unskill Labour	700.00	700.00	700.00	md										
	Excavator PC - 200	2610.30	2310.00	2310.00	per hr	300.30									
	vibrator roller upto10ton	56.50	50.00	50.00	per hr	6.50									
3	Painter	980.00	980.00	980.00	md										
4	Cement (OPC NS mark)	20594.00	18436.00	16600.00	mt	2,158.00	1000	0.048	2.92	20	0.30	0.00	960	876.00	
5	Sand	4523.20	4523.20	2200.00	m3		1600	0.048	2.92	12	0.30	0.00	921.6	1,401.60	
6	Aggrigate 40mm	5694.40	5694.40	2500.00	m3		2200	0.048	2.92	12	0.30	0.00	1267.2	1,927.20	
7	Aggrigate 20mm	5694.40	5694.40	2500.00	m3		2200	0.048	2.92	12	0.30	0.00	1267.2	1,927.20	
8	Aggrigate 10mm	5694.40	5694.40	2500.00	m3		2200	0.048	2.92	12	0.30	0.00	1267.2	1,927.20	
9	Stone	2112.00	2112.00	1500.00	m3		1800	0.048	2.92	1	0.10	0.00	86.4	525.60	
10	River Bed Material	3327.20	3327.20	1400.00	m3		2200	0.048	2.92		0.30	0.00	0	1,927.20	
11	Sal wood	175336.80	175336.80	174636.00	m3		800	0.048	2.92		0.30	0.00	0	700.80	
12	Local Wood	71085.60	71085.60	70560.00	m3		600	0.048	2.92		0.30	0.00	0	525.60	
13	Mud	350.00	350.00	350	m3		1600		2.92		0.30				
14	Bamboo	175	175	175	Nos				2.92		0.30				
15	Nail	125.66	111.36	110.00	kg	14.3	1	0.048	2.92	10	0.30		0.48	0.88	
16	Reinforcement Bar	89411.00	79336.00	77500.00	mt	10075	1000	0.048	2.92	20	0.30		960	876.00	
14	Brick(Chimney)	23.75	19.35	17.00	nos	2.21	2.50	0.047	2.92	20	0.30	2.19	2.35		
17	Binding wire(Black)	114.84	101.84	100.00	kg	13	1	0.048	2.92	20	0.30		0.96	0.88	
18	Snowcem Paint	69.64	61.84	60.00	kg	7.8	1	0.048	2.92	20	0.30		0.96	0.88	
19	White Cement	31.22	27.84	26.00	kg	3.38	1	0.048	2.92	20	0.30		0.96	0.88	
20	2X 500 gauge polythene	93.79	76.00	83.00	m2	10.79		0.048	2.92	20	0.30		0	-	
21	Chicken wire mesh	113.00	100.00	100.00	sq.m	13		0.048	2.92	20	0.30		0	-	
22	Plain wire mesh	216.54	191.84	190.00	Kg	24.7	1	0.048	2.92	20	0.30		0.96	0.88	
23	Barbed wire	120.49	106.84	105.00	Kg	13.65	1	0.048	2.92	20	0.30		0.96	0.88	
24	U hook	2.83	2.50	2.50	nos	0.325		0.048	2.92	20	0.30		0		
25	GI wire 10swg (Heavy Coated)	113.96	100.96	100.00	Kg	13	1	0.048	2.92	20	0.30		0.96		
26	GI wire 8swg (Heavy Coated)	113.96	100.96	100.00	Kg	13	1	0.048	2.92	20	0.30		0.96		
27	Gi wire 12swg(Heavy Coated)	119.61	105.96	105.00	Kg	13.65	1	0.048	2.92	20	0.30		0.96		
28	Iron angled post (13 kg)	1419.42	1258.87	1235.00	nos	160.55	13	0.048	2.92	20	0.30		12.48	11.39	

Prepared By Checked By Approved By