

11	Bar binding work including chicken wire mesh, MS bar, GI wire, etc.												
12	12.5 mm thick 1:2 cement-sand plaster 4 layers for ferroccement												
	- Wall portion (Q = 4x2 π x r x h, r = d/2+0.025)	4×2π	1.53			1.65	63.24						
	- Roof portion	4×2π	2.58			0.500	32.37						
	Q = 2 x π x R x h, R = ((d+.05) ² +4h ²)/8h,h=dome height												
	- Deduction for manhole opening (Q = 4 x π x r ² , r = 0.60/2 = 0.30)	4×2π	0.30	0.30			-1.13						
	Total plaster						94.48	m ²				435.92	
13	12.5 mm thick 1:3 cement-sand plaster sand mortar for												
	- Floor portion of storage tank (Q = π x r ² , r = d/2)	π	1.50	1.50			7.07	m ²				377.46	
14	12.5 mm thick 1:4 cement-sand plaster												
	- Floor portion of valve chamber			1.00	0.80		0.80						
	- inner wall of valve chamber			3.60		1.15	4.14						
	Total plaster						4.94	m ²				364.52	
15	3 mm thick 1:1 cement sand punning												
	- Floor portion of storage tank(Q = π x r ² , r = d/2)	π	1.50	1.50			7.07						
	- Wall portion of storage tank (Q = 2 x π x r x h)	2π	1.50			1.65	15.55						
	Total punning						22.62	m ²				225.07	
16	Bitumen paint on the buried surface of storage tank (Q = 2 x π x r x h, r = d/2+0.05)	2π	1.55			1.25	12.17	m ²				75.96	
17	Snowcem paint on exposed surface of storage tank												
	- Wall portion (Q = 2 x π x r x h, r = d/2+0.05)	2π	1.55			0.40	3.90						
	- Roof portion (Q = 2xπxRhx, R = (D ² +4h ²)/8h, D = d+0.10, h= dome height)	2π	2.65			0.50	8.33						
	Total						12.23	m ²				241.74	
18	600 mmφ circular metal manhole cover for ferroccement						2	set				2994.60	
19	Installation of Pipes & fittings						1.00	job				2000.00	
20	Barbed wire fencing (Type-A)	1	24.00				24.00	m				2207.74	
21	Entrance gate in barbed wire fencing (Type-A)	1					1.00	No				14821.04	
Total Amount without VAT													
Add Value Added Tax													
Total cost of reservoir tank with fencing and gate													
													@ 13.00%
													Rs.

2 85 682.79

Amount
3 449.60
22 385.32
3 696.05
16 889.24
20 601.04
6 155.00
18 495.24
1 405.78
1 340.69
6 974.42

m³

Amount

21 003.80

41 183.78

2 668.11

1 800.73

5 090.96

924.71

2 956.15

5 989.20

2 000.00

52 985.76

14 821.04

2 52 816.63

32 866.16

2 85 682.79

Project:- Tungal Water Supply Project
UNIT RATE OF CONSTRUCTION WORK

Page no -1 of 2

S.No.	Description	Unit	Rate per unit
1	Site clearance	m2	98.56
2	Earthwork in excavation		
a)	Soft soil	m3	615.94
b)	Hard soil	m3	769.93
c)	Gravel and boulder mixed soil	m3	979.34
d)	soft rock	m3	1,847.82
e)	cc	m3	2,771.73
f)	Hard rock (with chiseling)	m3	15,521.69
3	E/W in excavation in under water in BM Soil	m3	2,161.95
4	E/W in refilling including watering		
a)	Soft soil	m3	307.97
b)	Hard soil	m3	388.04
c)	Gravel and boulder mixed soil	m3	369.56
5	Stonework: Stone masonry work upto 5m height of wall including collection of blockstone & preparation of Cement mortar		
a)	In 1:3 Cement Sand mortar	m3	12,001.01
b)	In 1:4 Cement Sand mortar	m3	11,334.12
c)	In 1:6 Cement Sant mortar	m3	10,236.54
d)	Dry Masonary	m3	4,071.00
e)	Mud masonry work	m3	4,349.94
f)	Stone filling in foundation, trench & levelling including a lead of 30m		3,139.50
6	CEMENT CONCRETE WORK: in foundation and wall including collection of materials and lead of 30m		
a)	P.C.C. 1:3:6	m3	11,941.37
b)	P.C.C. 1:2:4	m3	13,955.02
7	CEMENT CONCRETE WORK: in Superstructure decksab & beams including collection of materials & lead of 30m		
a)	P.C.C. 1:2:4	m3	15,582.27
b)	P.C.C. 1:1:5:3	m3	17,299.45
c)	P.C.C. 1:1:5:3 with 2% WPC	m3	22,871.34
8	Cutting, bending & placing in position & binding of MS Rod for RCC work including a lead of 30m	kg.	111.57
9	FORMWORK: Preparation of forwork including of materials, cutting, nailing & fixing in position, removal and disposal with lead of 30m		
a)	For floor and slab	m2	1,158.51
b)	Woodwork: Wood work for chaukhat	m3	252,208.09
c)	Salwood work for beams and joist including fixing	m3	225,373.90
10	Boulder soling with sand packing	m3	7,400.25
11	Coarse sand filling	m3	4,336.94
12	5-20mm size gravel filling	m3	3,616.75
13	3mm thick Cement Sand punning	m2	225.07
14	PLASTERING WORK: 12.5mm thick Cement Sand Plaster		
a)	In 1:2 Cement Sand mortar	m2	435.92
b)	In 1:3 Cement Sand mortar	m2	377.46
c)	In 1:4 Cement Sand mortar	m2	364.52
15	PLASTERING WORK: 20mm thick Cement Sand Plaster		
a)	In 1:3 Cement Sand mortar	m2	508.92
b)	In 1:4 Cement Sand mortar	m2	484.53

Project:- Tungal Water Supply Project
UNIT RATE OF CONSTRUCTION WORK

Page no-2 of 2

S.No.	Description	Unit	rate per unit
16	CGI Sheet roofing	m2	-
17	PAINTING WORK		
a)	2 coats white washing	m2	26.61
b)	Readymade enamel painting work(1 coats primer and 2 coats of enamel paint)	m2	276.59
c)	Aluminum painting for gate(1 coat primer and 2 coats alumium paint)	m2	246.23
d)	Bitumen paint on surface(2 coats)	m2	75.96
e)	Snowcem painting 2 coats on exposed surface	m2	241.74
18	CEMENT POINTING: Flushed ruled pointing in R/R masonry wall		
a)	In 1:2 Cement Sand mortar	m2	276.56
b)	In 1:3 Cement Sand mortar	m2	256.19
19	GABION WORK: Making Gabion including cutting wire, netting etc. complete Hexagon mesh size: (80mm x 100mm)		
a)	Box size (3m x 1m x1m)	m3	1,934.30
b)	Box size (2m x 1m x1m)	m3	2,023.58
20	Stone packing in gabion box	m3	2,323.00
21	PIPE JOINTING WORK: Laying and jointing (Butt welding) of HDPE pipe		
a)	20 & 25mm ID	m	3.31
b)	32mm ID	m	3.92
c)	40 & 50mm ID	m	4.67
d)	63, 75, & 90mm ID	m	65.50
e)	110 & 125mm ID	m	93.55
22	Laying of GI Pipes		
a)	15mm & 20mm OD	m	60.36
b)	25mm & 32mm OD	m	83.23
c)	40 mm & 50mm OD	m	113.61
d)	65mm & 80mm OD	m	151.74
23	DAMP PROOF WORK		
a)	One layer of polythence sheet of 500 gauge	m2	507.86
24	IRON WORK: 5 lines horizontal & 2 lines diagonal barbed wire fencing on salwood post (75mm x 100mm x 2100mm) at a spacing of 3m c/c for	m	1,541.01
25	Barbed wire fencing	m	66.17
26	Supply and installation of metal manhole cover 600mm dia including Labour cost	no.	2,994.60
27	FEROCEMENT WORK		
a)	Formwork	m2	295.29
b)	Steel bar binding with chicken wire & gabion wire	m2	889.28
28	MISCELLANEOUS WORK		
a)	Dewatering	job	-
b)	Supply and fixing of Gi Valvebox	job	549.13
29	Barbed wire fencing Type-A(M.S, Angle)	m	2207.74
30	Entrance gate-A	no	14,821.04
31	38mm tjhick panned door shutter	m2	13,678.99
32	Masquito wiremesh shutter	m2	4,465.62
33	Brick work in cement sand mortar		
a)	In 1:3 Cement Sand mortar	m3	24,323.55
b)	In 1:4 Cement Sand mortar	m3	24,014.63
c)	In 1:6 Cement Sant mortar	m3	23,364.17
d)	mud mortar	m3	19,398.98
38			

Project:- Tungal Water Supply Project
Name of work : Breakdown of Village contribution

S.No.	Description	Whole project
1	Transmission pipe line work	793649.00
2	Distribution pipe line work	0.00
	Total contribution Rs.	793649.00
	Total Estimate Amount Rs.	1697420.74
	Contribution in %	46.76

SCHEMEWISE PROJECT COST

8

Project:- Tungal Water Supply Project

SN	Description of Items	Rate per item	Scheme 1		Whole Project	
			QTY	Amount	QTY	Amount
B	Materials And Equipment					
1	Procurement of Pipes		2,820.00	144,277.74	2,820.00	144,277.74
2	Procurement of fittings			64,924.98	-	64,924.98
5	Tools and plants			19,477.49	-	19,477.49
	Sub Total of B			228,680.22		228,680.22
C	CIVIL WORKS					
1	Intake RCC	130,849.11	1.00	130,849.11	1.00	130,849.11
2	Collection Chamber / DC/BPT	166,327.14	1.00	166,327.14	1.00	166,327.14
4	RT Construction					
C)	RT - 10 Cum	285,682.79	1.00	285,682.79	1.00	285,682.79
6	Transportation of Pipe & fittings			2,228.92	-	2,228.92
7	Pipe laying & Jointing - Jointing		2,200.00	9,174.00	2,200.00	9,174.00
i	Transmission line		2,200.00	793649	2,200.00	793,649.00
ii	Distribution line				-	-
	Total cost of C			1,387,910.96		1,387,910.96
	Total cost of (A+B+C)			1,616,591.18		1,616,591.18
	Contingencies @ 5%			80,829.56		80,829.56
	Grand Total:			1,697,420.74		1,697,420.74

Prepared By:

Checked By:

Approved By:

SCHEMEWISE SALIENT FEATURE

Project:- Tungal Water Supply Project

SN	Information	Scheme 1	Project
GENERAL			
1	Name of Source	Chisopani Khoriya	Chisopani Khoriya
2	Type of Source	Spring	Spring
3	Safe Yeild (lps)	0.12	0.12
4	Coverage Ward	2	2
5	Coverage Tole	Tungal	Tungal
6	Present Household	10	10
7	Present Population	75	75
8	Design Population	100	100
9	Institutional Population	125 (115 -student & 10 nos teacher)	125 (115 -student & 10 nos teacher)
9	Design Water Demand (lpd)	7282	7282
10	Scheme Type	Gravity	Gravity
11	Survey Year	2073	2073
12	Design Year	2090	2090
TECHNICAL			
13	Transmission Pipeline Length (m)	2200	2200
14	Distribution Pipeline Length (m)		
15	Total Pipeline Length (m)	2200	2200
16	Intake	1	1
17	Storage Tank	1 (10 m3)	1 (10 m3)
FINANCIAL			
1	Total Estimate Cost	1697420.74	1697420.735
2	Per capita cost (Present)	22632.28	22632.28
3	Per capita cost (Design)	16974.21	16974.21
4	Per meter cost	771.55	771.55
5	Per liter cost	233.10	233.1
6	Upfront Cost @ 1%	16974.21	16974.21
7	Village contribution (Rs.)	793649.00	793649
8	Village contribution (% of total Estimate)	46.76	46.76

DETAILED ESTIMATE AND ABSTRACT OF COST
FERROCEMENT STORAGE TANK(10.0 Cu.m.)

Project:- Tungal Water Supply Project

Page 1 of 2

S.No.	Description	No.	Radius	Length	Breadth	Height	Quantity	Unit	Rate	Amount
1	Site Clearance	1		8.00	8.00		64.00	m2	98.56	6307.84
2	Earthwork in excavation for foundation in boulder mixed soil for:									
	valve chamber	1		1.70	1.50	1.30	3.32			
	storage tank	1	2.30			1.00	16.61			
	(Q= $\pi \times r^2 \times h$, $r=d/2+0.05+0.75$, $d=3.5m$)									
	Wash out pipe trench	1		10.00	0.60	0.90	5.40			
							Total-		25.33	979.34
3	Refilling of trench with soil including water sprinkling and ramming (Q= $\pi \times (R^2-r^2) \times h$, $r=d/2+.05+.75$, $r=d/2+0.05$)					0.80	7.25	m3	369.56	2679.31
4	Boulder soling with sand for									
	valve chamber	1		1.70	1.50	0.15	0.38			
	storage tank	1	1.85			0.20	2.15			
	(Q= $\pi \times r^2 \times h$, $r=d/2+.05+.3$)									
	deduction for valve chamber portion	1		1.70	0.40	0.20	(0.14)			
							Total-		2.40	7,400.25
5	Stone masonry in mud mortar for valve chamber	1		5.00	0.35	1.15	2.01	m3	4,349.94	8743.38
6	Plain cement concrete(1:2:4)in RCC work for									
	Cover slab of valve chamber	1		1.70	1.50	0.10	0.26			
	Deduction for manhole opening	1	0.30			0.10	(0.03)			
	Q= $\pi \times r^2 \times h$, $r=.60/2=.30$									
	Manhole cover	2	0.30			0.05	0.03			
	Q= $\pi \times r^2 \times h$, $r=.60/2=.30$									
	pipe embeddment block	2		1.00	0.35	0.20	0.14			
							Total-		0.40	15,582.27
7	Plain Cement Concrete (1:1:5:3) for tank base Q= $\pi \times r^2 \times h$, $r=d/2+.05+.1$	1	1.65			0.13	1.11	m3	17,299.45	19202.39
8	Steel work in RCC for cover slab of valve chamber 6mm dia bars @ 10cm c/c both ways									
	Longer span	18*1.5=		27.00						
	Shorter span	16*1.7=		27.20						
	Deduction for manhole opening	12*.45=		(5.40)						
				48.8m.	@	0.22kg./m.	10.74	kg	111.57	1198.26
9	Centering & shuttering works for RCC for Cover slab									
	Bottom	1		1.00	0.80		0.80			
	Sides	1		6.40		0.10	0.64			
	Deduction for manhole opening	1	0.30				(0.28)			
	Q= $\pi \times r^2$, $r=0.60/2=0.30$									
							Total-		1.16	1,158.51
10	3mm thick cement punning with (1:1) cement sand mortar for									
	Floor portion storage tank	1	1.50				7.07			
	Q= $\pi \times r^2$, $r=d/2$									
	Wall portion of storage tank	1	1.50			1.65	15.54			
	Q=2 x $\pi \times r \times h$, $r=d/2$									
							Total-		22.61	225.07
11	Cement plaster 12.5mm thick with (1.2) cement sand mortar(4 layers) for ferrocement for									
	Wall portion of storage tank	4	1.53			1.65	63.21			
	Q=4 x 2 x $\pi \times h$, $r=d/2+.05/2$									
	Roof portion (Q= 4 x 2 x $\pi \times R \times h$)	4	2.31			0.58	33.37			
	R=(D ² +4 h ²)/8h, D=d+.05, h=d/5-.05/2									
	Deduction for manhole opening	4	0.30				(1.13)			
	(Q=4 x $\pi \times r^2$), $r=.60/2=.30$									
							Total-		95.45	435.92
12	12.5mm thick cement plaster with(1:3)cement sand mortar for									
	Floor portion of storage tank	1	1.50				7.07	m2	377.46	2668.64
	Q= $\pi \times r^2$, $r=d/2$									
Total of this page: Rs.										137,641.27

DETAILED ESTIMATE AND ABSTRACT OF COST

FERROCEMENT STORAGE TANK(10.0 Cu.m.)

Project:- Tungal Water Supply Project

Page 2 of 2

S.No.	Description	No.	Radius	Length	Breadth	Height	Quantity	Unit	Rate	Amount
13	20mm thick cement plaster with(1:4)cement sand mortar for									
	Floor portion of valve chamber	1		1.00	0.80		0.80			
	Wall portion of valve chamber	1		3.60		1.15	4.14			
	Total-						4.94	m2	484.53	2393.58
14	Bitumen paint on the buried surface of tank Q= 2 x pai x r x h, r=d/2+.05	1	1.55			0.80	7.79	m2	75.96	591.73
15	Snowcem paint on exposed surface of tank									
	Wall portion Q= 2 x pai x r x h, r=d/2+.05	1	1.55			0.85	8.27			
	Roof portion Q=2*pai xR*h, R=(D/2 +4 h2)/ 8h, D=d+0.10, h=d/5	1	2.30			0.60	8.67			
	Total-						16.94	m2	241.74	4095.08
16	Installation of pipes & fittings						1.00	Job	800.00	800.00
17	Polythene sheer 500 gauge for tank base Q=pai x r 2, r=d/2+0.05+0.10	1	1.65				8.55	m2	507.86	4342.20
18	Formwork for ferrocement									
	Wall portion Q=2 x pai x r x h, r=d/2	1	1.50			1.65	15.54			
	Roof portion Q= 2 x pai xR x h, R= d 2 + 4h2/8h, h= d/5-0.05	1	2.32			0.55	8.01			
	Deduction for manhole (Q=pai x r 2)	1	0.30				(0.28)			
	Total-						23.27	m2	295.29	6871.40
19	Reinforcement, including chicken wire mesh, steel rod,GI Wire etc.									
	Wall portion of storage tank Q = 2 x pai x r h, r= d/2+.05/2	1	1.53			1.65	15.80			
	Roof portion (Q=2 x pai x R x h) R=(D 2 + 4h2)/8h, D= d+0.05, h=d/5-0.05/2	1	2.31			0.58	8.34			
	Deduction for manhole opening (Q= pai x r 2), r= 0.60/2=0.30	1	0.30				(0.28)			
	Total-						23.86	m2	889.28	21218.22
20	Barbed wire fencing with M.S. angle (Type A)						27.00	m	2,207.74	59608.98
21	Entrance gate in barbed wire fencing (Type A)	1					1.00	no	14,821.04	14821.04
22	600mm circular manhole cover for ferrocement tank as per standard details	2					2.00	set	2,994.60	5989.20
Total of this page: Rs										120731.43
Total of page 1 of 2 Rs.										137641.27
Grand Total : Rs										258372.70
Add @ 13 % VAT										33588.45
Say Rs.										291961.15

**DETAILED ESATIMATE AND ABSTRACT OF COST
COLLECTION CHAMBER, BREAK PRESSURE CHAMBER, DISTRIBUTION CHAMBER
(Stone Masonry Type)**

Project:- Tungal Water Supply Project

SN	Description	No.	Length	Breadth	Height	Quantity	Unit	Rate	Amount
1	Site clearance work	1	4.00	2.00		8.00	m2	98.56	788.48
2	Earth work in excavation in boulder mixed soil	1	3.45	1.85	1.30	8.30	m3	979.34	8128.52
3	Earth work in back filling	1	10.20	0.10	1.30	1.33	m3	369.56	491.51
4	Dry stone soling work	1	3.60	1.85	0.15	1.00	m3	3,139.50	3139.50
5	PCC Work in 1:2:4 in foundation	1	3.45	1.85	0.10	0.64			
		1	0.55	1.85	0.20	0.20			
	Pipe embedment block	6	0.45	0.30	0.30	0.24			
	Pipe support	1	0.60	0.45	0.10	0.03			
	Manhole cover	2	pai x 0.30x	0.30	0.05	0.03			
					Total-	1.14	m3	13,955.02	15908.72
6	Stone masonry work in 1:4 cement mortar								
		1	1.65	0.45	1.10	0.82			
		1	1.65	0.45	1.30	0.97			
		2	1.65	0.45	1.10	1.63			
		2	0.70	0.45	1.30	0.82			
		1	0.75	0.45	0.65	0.22			
					Total-	4.46	m2	11,334.12	50550.18
7	RCC Work in 1:2:4	1	3.25	1.65	0.10	0.54			
	Deduction for Manhole	2	pai x 0.30 x	0.30	0.10	(0.06)			
					Total-	0.48		15,582.27	7479.49
8	Centering and shuttering works								
	Sides for PCC work	2	1.85		0.10	0.37			
		2	3.45		0.10	0.69			
		2	0.55		0.20	0.22			
		1	1.85		0.20	0.37			
	for RCC slab	1	2.35	0.75		1.76			
		2	1.65		0.10	0.33			
		2	3.25		0.10	0.65			
	Deduction for Manhole	2	pai x 0.30 x	0.30		(0.57)			
	for 5cm ferrocement baffle								
	wall plate	2	0.35	0.79		0.55			
	Pipe support	1	0.45		0.10	0.05			
					Total-	4.42	m2	1,158.51	5120.61
9	Reinforcement work 6mm dia. @ 100mm c/c	34	1.65	0.22	kg. / m	12.34			
		18	3.25	0.22	kg. / m	12.87			
					Total-	25.21	kg.	111.57	2812.68

DETAILED ESTIMATE AND ABSTRACT OF COST

BARBED WIRE FENCING & ENTRANCE GATE (Type - A)

Project:- Tungal Water Supply Project

Page 1 of 1

S.No.	Description	No.	Length	Breadth	Height	Quantity	Unit	Rate	Amount
BARBED WIRE FENCING FOR 24m LENGTH									
1	Site clearance					1	Job	100.00	100.00
2	Earthwork in excavation in foundation	16	0.35	0.35	0.60	1.18	m3	979.34	1,155.62
3	Dry stone soling with sand	16	0.35	0.35	0.10	0.2	m3	7400.25	1,480.05
4	PCC Work in 1:2:4 for anchor blocks	16	0.35	0.35	0.50	0.98	m3	13955.02	13,675.92
5	Stone masonry work in 1:6 cement sand mortar	16	0.35	0.35	0.50	0.98	m3	10236.54	10,031.81
6	Barbed wire fencing (16+1,one more lengths of barbed wire to be anchored on entrance gate.)	17x7	1.50			178.5			
	Cross barbed wire	17x2	2.12			72.08			
	L = (1.5x1.5+1.5x1.50)1/2				Total-	250.58		66.17	16,580.88
7	6mm dia. Steel bar for hooks 650mm long each	18x2	0.65	0.22	kg/m	5.15	kg.	111.57	574.59
8	M.S. 40x40x6mm angle bar 2.50m. Long	16	2.50	3.50	kg/no	140	kg.	67.05	9,387.00
	Total -								52985.87
	Rate per meter -								2207.74
ENTRANCE GATE									
1	Site clearance					1	Job	50.00	50.00
2	Earthwork in excavation in foundation	2	0.60	0.60	0.60	0.43	m3	979.34	421.12
3	Stone masonry work in 1:6 cement sand mortar for pillar								
	In foundation	2	0.60	0.60	0.60	0.43			
	Above GL.	2	0.45	0.45	1.60	0.65			
					Total-	1.08	m3	10236.54	11055.46
4	Cement pointing work in stone masonry wall in 1:3 cement sand mortar								
	For pillar	8	0.45		1.60	5.76			
	On top	2	0.45	0.45		0.41			
	Deduction two sides	2	0.45		0.60	-0.54			
					Total-	5.63	m3	256.19	1442.35
5	25x25x3mm size M.S. steel Angle Gate with Iron grill shutter (0.95 x 1.50 m size) all complete including fixing	1				1.00	set	1500.00	1500.00
6	2 coats painting for gate	1	0.95		1.50	1.43	m2	246.23	352.11
	TOTAL - RS.								14821.04

Total Cost for Barbed Wire Fencing Work (Type A) for 90 M Length

213517.6

Name of Project :	Project:- Tungal Water Supply Project
VDC :	VDC:Thuloparsel
Ward No:	2
District :	Kavrepalanchowk
No of Scheme :	1
Population growth rate:	1.73
Type of tap	
Transportation of Materials	
Pitch road	

Project:- Tungal Water Supply Project
Unit Rate of Construction Materials at Project site
(As per District Rate 2073/074)

1 General

a) Rate analysis is based on GON approved Norms 2041 (including 2nd revision) and approved district rate of Kavre for fiscal year 2071/072

b) Motarable road head distance (Truck transportation)

i) Pitch road from	Banepa	To	Tamaghat	14.00	Km.
ii) Earthern road from	Tamaghat	To	Project site	47.00	Km.
c) Manual distance from	Project site	To	Project site	0.31	Kosh

d) District rate of truck transportation easy Materials

i) Pitch road =	Rs.	0.02300 /kg./km.	ii) Gravel road =	Rs.	/kg./km.
iii) Earthern road =	Rs.	0.04800 /kg./km.			
iv) Load-unload charge		0.15000 /kg.			

d1) District rate of truck transportation uneasy Materials (Pipes fittings etc.)

i) Pitch road =	Rs.	0.02600 Per Kg/Km	ii) Gravel road =	Rs.	/kg./km.
ii) Earthern road =	Rs.	0.05100 Per Kg/Km			

e) District rate of Manual transportation

i) Easy materials =	Rs.	3.30000 /kg/kosh	iii) Polythene Pipe	3.85000 /kg/kosh
ii) Uneasy materials =	Rs.	3.85000 /kg/kosh		

f) Average distance of stone quarry

700 meter

g) Average distance of sand quarry from Dolalghat
Manual = 0.31 Kosh

40 Km

h) Density of rubble stone - 2400 kg/m³

l) Density of aggregate - 1600 kg/m³

j) Density of sand - 1450 kg/m³

2 Transportation of materials

a) Cost of Easy Materials by truck transportation per kg

i) Pitch road =	Rs.	14.00	x	0.023	Rs.	0.32
ii) Earthern road =	Rs.	47.00	x	0.048	Rs.	2.26
iii) Load - unload charge					Rs.	0.15

Total cost of easy materials by truck transportation =

Rs. 2.73 Per Kg.

b) Cost of Uneasy Materials by truck transportation per kg

i) Pitch road =	Rs.	14.00	x	0.0260	Rs.	0.36
ii) Earthern road =	Rs.	47.00	x	0.0510	Rs.	2.40
iii) Load - unload charge					Rs.	0.15

Total cost of uneasy materials by truck transportation =

Rs. 2.91 Per Kg.

b) Cost of manual transportation

i) Easy materials = Rs. 0.31 x 3.30 Rs. 1.03 Per Kg.

Sub total cost of easy materials to project site Rs. 3.76

Addition-Vat + CP (29.95%) Rs. 1.13

Total cost of easy materials to project site Rs. 4.89 Per Kg.

ii) Uneasy materials = Rs. 0.31 x 3.85 Rs. 1.20 Per Kg.

Sub total cost of Un- easy materials to project site Rs. 4.11

Addition-Vat + CP (29.95%) Rs. 1.23

Total cost of Un easy materials to project site Rs. 5.34 Per Kg.

Project:- Tungal Water Supply Project
Unit Rate of Construction Materials at Project site
(As per District Rate 2073/074)

3 Sand

Labour required for collection of river sand per m3 (quary capacity=51%-65%)				= md		per m3
District rate				= Rs.	1,540.00	
Cost of sand collection per m3			1,540.00	= Rs.	1540.00	
Transportation of sand from Dolalghat		3.46	1450.00		5017.00	
Transportation cost by manual	0.31	x	3.85	x	1450.00	1744.53
Total cost of sand at project site					Rs.	8301.53 Per cu.m.

4 Random Rubble Stone and Boulder

Labour required for collection & stacking with 10m lead =		1.4	md/m3			
Cost of stone collection and stacking		1.40	x	520.00		Rs. 728.00
Cost of stone transportation =	0.22	x	3.30	x	2400	Rs. 1742.40
Total cost of stone at project site					Rs.	2470.40 Per cu.m.

5 5-10mm size aggregate

Labour required for collection & screening and stacking with 10m lead =			29	md/m3		
District Rate						Rs. 1600.00
Cost of transportaion by truck		3.46		1600		5536.00
Cost of aggregate transportation =	0.31		3.85	x	1600	Rs. 1925.00
Total cost of 5mm-10mm aggregate at project site					Rs.	9061.00 Per cu.m.

6 10mm-20mm size aggregate

Labour required for collection & screening and stacking with 10m lead =			21.5	md/m3		
District Rate						Rs. 1600.00
Cost of transportaion by truck		3.46		1600		5536.00
Cost of aggregate transportation =	0.31		3.85	x	1600	Rs. 1925.00
Total cost of 5mm-10mm aggregate at project site					Rs.	9061.00 Per cu.m.

7 20mm-40mm size aggregate

Labour required for collection & screening and stacking with 10m lead =			15.00	md/m3		
District Rate						Rs. 1600.00
Cost of transportaion by truck		0.31				
Total cost of 5mm-10mm aggregate at project site					Rs.	1600.00 Per cu.m.

8 40mm-70mm size aggregate

Labour required for collection & screening and stacking with 10m lead =			9	md/m3		
Cost of collection and breaking		9.00	x			Rs.
Cost of collection and breaking						
Cost of aggregate transportation =			x			Rs.
Total cost of 40mm-70mm aggregate at project site					Rs.	Per cu.m.

9 Wood

District rate of Sal wood at project site						Rs. 173577.00 Per cu.m.
District rate of local wood at project site						Rs. 73030.00 Per cu.m.

10

Transportation of Pipes			From Dhulikhel to Buchakot	18.00		
a) Cost of truck transportation per kg						
i) Pitch road =		18.00	x	0.02600		Rs. 0.47
ii) Earthern road =		47.00	x	0.05100		Rs. 2.40
iii) Load - unload charge		1.00		0.15000		Rs. 0.15
Total cost of truck transportation =					Rs.	Rs. 3.02 Per Kg.
b) Cost of manual transportation						
i) Uneasy materials =	Rs.	0.31	x	3.85		Rs. 1.20 Per Kg.
						<u>4.22</u>

Project:- Tungal Water Supply Project
 UNIT RATE OF LABOURS AND MATERIALS
 (Based on district rate,prevailing market and local rates including transportation cost)

SN	Description	Unit	District rate as per market price	Transportation cost			Rate at site	Remarks
				Means of transportation				
				Vehicle	porter	Total		
LABOURS								
1	Helper	MD	520.00				520	
2	Labourer	MD	520.00				520	
3	Painter	MD	725.00				725	
4	Mason/Carpenter	MD	725.00				725	
5	Plumber	MD	725.00				725	
6	Porter	MD	520.00				520	
MATERIALS								
7	100mm Hings	No	27.00				27.00	
8	150mm Hings	No	55.00				55.00	
9	24 SWG Plain Sheet Medium	m2	80.00	9.96	4.38	14.34	94.34	1 m2=3.65kg
10	26SWG CGI Sheet(Colour) medium	m2	378.35	18.18	7.99	26.17	404.52	1bundle=17m2 1m2=6.66kg
11	Nuts & bolts	No	28.00				28.00	
12	Aggregate 10mm-20mm	m3	2200.00				2200.00	
13	Aggregate 20mm-40mm	m3	2200.00				2200.00	
14	Almunium paint	Ltr	546.00	2.73	1.03	3.76	549.76	
15	Bamboo 18-20 feet long	Pc	204.00	2.73		2.73	206.73	
16	Barbed wire M. Duty	kg.	95.00	2.73	1.20	3.93	98.93	per m =9.64
17	Binding wire	kg.	86.72	2.73	1.03	3.76	90.48	
18	Bitumen paint	Ltr	175.00	2.73	1.03	3.76	178.76	
19	Bitumen washer	pc	3.00				3.00	
20	Boulder stone(Rubble Random)	m3	1600.00				1600.00	
21	Bond stone/Block stone	m3	1750.00				1750.00	
22	Cement	Mt.	15380.00	2730.00	1030.00	3760.00	19140.00	
23	Chicken wire mesh	m2	74.00	1.23	0.54	1.77	75.77	1m=0.45kg
24	Cement primer	Ltr	268.00	2.73	1.03	3.76	271.76	
25	Door spring ordinary	No.	157.00				157.00	
26	Enamel paint	Ltr.	509.00	2.73	1.03	3.76	512.76	
27	Fuel(Petrol)	Ltr	104.00	2.73	1.20	3.93	107.93	
28	Flat stone upto 3" thick	No.	184.00				184.00	.40*.40 m
29	Gabion wire	kg.	93.00	2.73	1.03	3.76	96.76	
30	GI wire MC	kg.	93.00	2.73	1.03	3.76	96.76	
31	Glue	kg.	170.00	2.73	1.03	3.76	173.76	
32	Holdfast(1kg.=7 no.)	No.	17.29				17.29	7 nos per kg
33	Handle(120mm) ordinary	No.	24.00				24.00	
34	Hemp	kg.	4.00	2.73	1.03	3.76	7.76	
35	J-Hook(1 kg.= 15 no.)	No.	8.87				8.87	
36	Jute	No	15.00	2.73	1.03	3.76	18.76	
37	Locking set 150 mm	No	180.00				180.00	
38	Man-hole cover	set	2500.00				2500.00	
39	Metal primer(Red oxide)	Ltr.	254.00	2.73	1.03	3.76	257.76	
40	Masquito screen	m2	116.00				116.00	
41	Reinforcement bar	Mt.	73375.00	2730.00	1200.00	3930.00	77305.00	
42	Mud	m3	268.00				268.00	
43	Nails	kg.	112.00	2.73	1.20	3.93	115.93	
44	2" Roofing Nails	No.	7.00				7.00	
45	Polythene sheet 500 guage	m2	333.56				333.56	
46	Sal wood	m3	173577.00				173577.00	
47	Local wood (Saj)	m3	73030.00				73030.00	
48	Sand	m3	3000.00				3000.00	
49	Sand paper	No.	6.00				6.00	
50	Screw Steel 25mm	No.	2.00				2.00	
51	Selvedge wire	kg.	93.00	2.73	1.03	3.76	96.76	
52	Snowcem paint	kg.	260.00	2.73	1.03	3.76	263.76	
53	Tools Plants on hire	per day	500.00				500.00	
54	Tower bolt 150mm	No	67.00				67.00	
55	Tower bolt 300mm	No	107.00				107.00	
56	U- Hook(1kg.=15 no.)	No	8.87				8.87	
57	Varnish	Ltr	427.00	2.73	1.03	3.76	430.76	
58	Water proofing compound	kg.	289.00	2.73	1.03	3.76	292.76	
59	White lime	kg.	19.00	2.73	1.03	3.76	22.76	
60	Wood primer	Ltr.	365.00	2.73	1.03	3.76	368.76	
61	Wood listy 3/4" wide	m.	55.76				55.76	
62	Chimney Brick	no	16.00	6.03	2.28	8.31	24.31	2.21kg/no
63	MS Angle (40*40*6mm)	kg.	93.00	9.56	4.20	13.76	106.76	3.5kg/m
64	13mm dia wire rope for cable	m	103.25	2.73	1.20	3.93	107.18	
65	Thimble set 26mm dia	set	220.00	2.73	1.20	3.93	223.93	
66	Steel cable pulleys	set	465.00	2.73	1.20	3.93	468.93	
67	Bulldog grip 26mm dia	set	200.00	2.73	1.20	3.93	203.93	
68	3mm Glass	m2	516.48	20.48	9.00	29.48	545.96	7.5kg/m2
69	MS collaspsible gate	m2	7854.00	153.15	67.32	220.47	8074.47	56.1kg/m2
70	Black pipe	kg.	71.50	22.71	9.98	32.70	104.20	8.32kg/m2

Project:- Tungal Water Supply Project
UNIT RATE OF LABOURS AND MATERIALS

(Based on district rate,prevailing market and local rates including transportation cost)

SN	Description	Unit	District rate as per market price	Transportation cost			Rate at site	Remarks	
				Means of transportation					
				Vehicle	porter	Total			
MATERIALS									
71	3*20mm MS grill	m2	2717.00	67.43	29.64	97.07	2814.07	24.7kg/m2	
72	Cement Paint (Snowcem)	kg.	236.00	2.73	1.03	3.76	239.76		
73	Aggregate 10mm-5mm	m3	9061.00				9061.00		
74	Reinforcement bar								
a	4.75, 7 mm dia	kg.	81.85	2.73	1.20	3.93	85.78		
b	8 mm dia	kg.	82.70	2.73	1.20	3.93	86.63		
c	10,12,16,20,25 mm dia	kg.	81.55	2.73	1.20	3.93	85.48		
d	28,32 mm dia	kg.	81.55	2.73	1.20	3.93	85.48		
75	12mm dia steel cable	m	435.00	2.73	1.20	3.93	438.93		
76	Bonding material of old to new concrete	kg.	1250.00	2.73	1.20	3.93	1253.93		
77	MS Plate	kg.	76.00	2.73	1.03	3.76	79.76		
78	Gabion Box (MBG/10*12/2.7/3.4/2.2/ZN								
a	3 X 1 X .5	No	2202.00	109.20	48.00	157.20	2359.20		
b	3 X 1 X 1	No	3110.00	218.40	3840.00	4058.40	7168.40		
c	2 X 1 X 1	No	2182.00	2.73	1.20	3.93	2185.93		
79	Water	Lit	0.20	2.73	1.03	3.76	3.96		
80	Tar Felt	m2	120.00	2.73	1.03	3.76	123.76		
81	Fire wood	kg.	13.00	2.73	1.03	3.76	16.76		
82	Silica Admixture	kg.	400.00	2.73	1.03	3.76	403.76		

Rate Analysis

Project:- Tungal Water Supply Project

S.no of NORMS	Description	Unit	Labour			Materials					Total Amount Rs:	Contr's OH & VAT	Total Amount	
			Category	Md.	Rate	Amount	Type	Unit	Quantity	Rate				Amount
.1-8	Site Clearance: Earthwork in excavation 15-20 cm of the top soil including disposal outside of the site for 1 cu.m. EARTHWORK: Earthwork in excavation in foundation, drain and Pipeline including a lead of 10m & lift of 1.5m for 1 Cu.m.	Cu.m.	Labour	0.16	520.00	83.20	T & P		3% of LC		2.50	85.70	12.86	98.56
.2-9	Soft Soil	Cu.m.	Labour	1.00	520.00	520.00	T & P		3% of LC		15.60	535.60	80.34	615.94
.2-12	Hard Soil	Cu.m.	Labour	1.25	520.00	650.00	T & P		3% of LC		19.50	669.50	100.43	769.93
.2-14	Gravel & boulder mixed Soil	Cu.m.	Labour	1.59	520.00	826.80	T & P		3% of LC		24.80	851.60	127.74	979.34
.2-15ka	Soft Rock	Cu.m.	Labour	3.00	520.00	1,560.00	T & P		3% of LC		46.80	1,606.80	241.02	1,847.82
.2-15kha	Medium Rock	Cu.m.	Labour	4.50	520.00	2,340.00	T & P		3% of LC		70.20	2,410.20	361.53	2,771.73
.1-16kha	Hard Rock(With chiseling)	Cu.m.	Labour	25.20	520.00	13,104.00	T & P		3% of LC		393.12	13,497.12	2,024.57	15,521.69
.2-24	Excavation under Water in BMS	Cu.m.	Labour	3.51	520.00	1,825.20	T & P		3% of LC		54.76	1,879.96	281.99	2,161.95
.2-2	E/W in excavation in BM soil Earthwork in refilling including watering and ramming every 20cm layer soil	Cu.m.	Labour	0.80	520.00	416.00	T & P		3% of LC		12.48	428.48	64.27	492.75
2-ka	Soft soil	Cu.m.	Labour	0.50	520.00	260.00	T & P		3% of LC		7.80	267.80	40.17	307.97
2-ga	Hard Soil	Cu.m.	Labour	0.63	520.00	327.60	T & P		3% of LC		9.83	337.43	50.61	388.04
2-gha	Gravel & Boulder mixed soil	Cu.m.	Labour	0.60	520.00	312.00	T & P		3% of LC		9.36	321.36	48.20	369.56
6-1.1	Stonework: Stone masonry work upto 5m height of wall including collection of blockstone & preparation of Cement mortar In 1:3 Cement Sand mortar	Cu.m.	Mason Labour	1.50 5.00	725.00 520.00	1,087.50 2,600.00	Cement Sand Block Stone Bond Stone	MT Cu.m. Cu.m. Cu.m.	0.194 0.420 1.000 0.100	19,140.00 3,000.00 1,600.00 1,750.00	3713.16 1260 1600.00 175.00	10,435.66	1,565.35	12,001.01
6-1.2	In 1:4 Cement Sand mortar	Cu.m.	Mason Labour	1.50 5.00	725.00 520.00	1,087.50 2,600.00	Cement Sand Block Stone Bond Stone	MT Cu.m. Cu.m. Cu.m.	0.159 0.450 1.000 0.100	19,140.00 3,000.00 1,600.00 1,750.00	3043.26 1350.00 1600.00 175.00	9,855.76	1,478.36	11,334.12
6-1.3	In 1:6 Cement Sand mortar	Cu.m.	Mason Labour	1.50 5.00	725.00 520.00	1,087.50 2,600.00	Cement Sand Block Stone Bond Stone	MT Cu.m. Cu.m. Cu.m.	0.106 0.470 1.000 0.100	19,140.00 3,000.00 1,600.00 1,750.00	2028.84 1410.00 1600.00 175.00	8,901.34	1,335.20	10,236.54
6-2.1	Dry Masonary	Sq.m.	Mason Labour	1.00 2.00	725.00 520.00	725.00 1,040.00	Block Stone Bond Stone	Cu.m. Cu.m.	1.00 0.10	1,600.00 1,750.00	1600.00 175.00	3,540.00	531.00	4,071.00

Rate Analysis

Project:- Tungal Water Supply Project

S.no of NORMS	Description	Unit	Labour			Materials					Total Amount Rs:	Contr's OH & VAT	Total Amount	
			Category	Md.	Rate	Amount	Type	Unit	Quantity	Rate				Amount
6-2.2	Mud masonry work	Cu.m.	Mason	1.00	725.00	725.00	Block Stone	Cu.m.	1.00	1,600.00	1600.00	3,782.56	-	4,349.94
			Labour	2.25	520.00	1,170.00	Bond Stone	Cu.m.	0.10	1,750.00	175.00		567.38	
							Mud	Cu.m.	0.42	268.00	112.56		-	
.6-5	Stone filling in foundation, trench & leveling including a lead of 30m	Cu.m.	Labour	1.50	520.00	780.00	Block Stone	Cu.m.	1.00	1,600.00	1600.00	2,730.00	-	3,139.50
							Bond Stone	Cu.m.	0.20	1,750.00	350.00	409.50	-	
7-2kha	CEMENT CONCRETE WORK: in foundation and wall including collection of materials and lead of 30m	Cu.m.	Mason	1.00	725.00	725.00	Cement	MT	0.22	19,140.00	4210.80	10,383.80	1,557.57	11,941.37
			Labour	4.00	520.00	2,080.00	Sand	Cu.m.	0.47	3,000.00	1410.00		-	
							Aggre 40mm	Cu.m.	0.65	2,200.00	1430.00		-	
							Aggre. 20mm	Cu.m.	0.24	2,200.00	528.00		-	
7-2gha	P.C.C. 1:2:4	Cu.m.	Mason	1.00	725.00	725.00	Cement	MT	0.32	19,140.00	6124.80	12,134.80	-	13,955.02
			Labour	4.00	520.00	2,080.00	Sand	Cu.m.	0.445	3,000.00	1335.00		1,820.22	
							Aggre 40mm	Cu.m.	0.52	2,200.00	1144.00		-	
							Aggre. 20mm	Cu.m.	0.22	2,200.00	484.00		-	
							Aggre. 10mm	Cu.m.	0.11	2,200.00	242.00		-	
7-4kha	CEMENT CONCRETE WORK: in Super-structure deckslab & beams including collection of materials & lead of 30m	Cu.m.	Mason	0.80	725.00	580.00	Cement	MT	0.32	19,140.00	6124.80	13,549.80	-	15,582.27
			Labour	7.00	520.00	3,640.00	Sand	Cu.m.	0.445	3,000.00	1335.00		2,032.47	
							Aggre 40mm	Cu.m.	0.52	2,200.00	1144.00		-	
							Aggre. 20mm	Cu.m.	0.22	2,200.00	484.00		-	
							Aggre. 10mm	Cu.m.	0.11	2,200.00	242.00		-	
7-4kha	P.C.C. 1:1.5:3	Cu.m.	Mason	0.80	725.00	580.00	Cement	MT	0.40	19,140.00	7656.00	15,043.00	2,256.45	17,299.45
			Labour	7.00	520.00	3,640.00	Sand	Cu.m.	0.425	3,000.00	1275.00		-	
							Aggre. 20mm	Cu.m.	0.57	2,200.00	1254.00		-	
							Aggre. 10mm	Cu.m.	0.29	2,200.00	638.00		-	
7-4kha	P.C.C. 1:1.5:3 with 3% Silica Admixture	Cu.m.	Mason	0.80	725.00	580.00	Cement	MT	0.40	19,140.00	7656.00	19,888.12	2,983.22	22,871.34
			Labour	7.00	520.00	3,640.00	Sand	Cu.m.	0.425	3,000.00	1275.00		-	
							Aggre. 20mm	Cu.m.	0.57	2,200.00	1254.00		-	
							Aggre. 10mm	Cu.m.	0.29	2,200.00	638.00		-	
							Silica Admixt	Kg	12.00	403.76	4845.12		-	
.7-5	Cutting, bending & placing in position & binding of MS Rod for RCC work including a lead of 30m	Mt	Mason	12.00	725.00	8,700.00	MS Rod	MT	1.05	77,305.00	81170.25	97,015.05	14,552.26	111,567.31
			Labour	12.00	520.00	6,240.00	Binding wire	Kg	10.00	90.48	904.80			

Rate Analysis

Project:- Tungal Water Supply Project

S.no of NORMS	Description	Unit	Labour			Materials					Total Amount Rs:	Contr's OH & VAT	Total Amount		
			Category	Md.	Rate	Amount	Type	Unit	Quantity	Rate				Amount	
8-2ka	FORMWORK: Preparation of formwork including collection of materials, cutting, nailing & fixing in position, removal and disposal with lead of 30m For floor and slab	Sq.m.	Carpenter Labour	0.172 0.257	725.00 520.00	124.70 133.64	Local wood Nails	Cu.m. kg.	0.00986 0.25	73,030.00 115.93	720.08 28.98	1,007.40	151.11	1,158.51	
							Quantity of wood required for 1 Sq.m. formwork=.0526.Wood can be used 4 times for the formwork and after then 25% of the cost is assumed as salvage value. So the required amount of the wood for 1 Sq.m. formwork = 0.006								
.10-1	Woodwork: Wood work for chaukhat	Cu..m	Carpenter Labour	34.00 3.40	725.00 520.00	24,650.00 1,768.00	Sal wood Holdfast Screw	Cu.m. no no	1.10 92.00 184.00	173,577.00 17.29 2.00	190,934.70 1,590.68 368.00	219,311.38	32,896.71	252,208.09	
.10-17	Salwood work for beams and joist including fixing	Cu..m	Carpenter Labour	17.65 1.76	725.00 520.00	12,796.25 915.20	Sal wood Nails	Cu.m.	1.05	173,577.00 L.S.	182,255.85 10.00	195,977.30	29,396.60	225,373.90	
.10-16	Boulder soling with sand packing	Cu..m	Mason Labour	1.00 3.50	725.00 520.00	725.00 1,820.00	Boulder Sand	Cu.m. Cu.m.	1.10 0.71	1,600.00 3,000.00	1,760.00 2,130.00	6,435.00	965.25	7,400.25	
11-19 ka	Coarse sand filling	Cu..m	Mason	0.65	725.00	471.25	Coarse sand	Cu.m.	1.10	3,000.00	3,300.00	3,771.25	565.69	4,336.94	
.10-19kh	5-20mm size gravel filling	Cu..m	Mason	1.00	725.00	725.00	Gravel	Cu.m.	1.10	2,200.00	2,420.00	3,145.00	471.75	3,616.75	
.14-6	3mm thick Cement Sand punning	Sq.m.	Mason Labour	0.10 0.10	725.00 520.00	72.50 52.00	Cement Sand	MT Cu.m.	0.00336 0.00230	19,140.00 3,000.00	64.31 6.90	195.71	29.36	225.07	
	PLASTERING WORK: 12.5mm thick Cement Sand Plaster	Sq.m.													
12-1ka	In 1:2 Cement Sand mortar		Mason Labour	0.12 0.16	725.00 520.00	87.00 83.20	Cement Sand	MT Cu.m.	0.0090 0.0122	19,140.00 3,000.00	172.26 36.60	379.06	56.86	435.92	
12-1kha	In 1:3 Cement Sand mortar		Mason Labour	0.12 0.16	725.00 520.00	87.00 83.20	Cement Sand	MT Cu.m.	0.00625 0.01280	19,140.00 3,000.00	119.63 38.40	328.23	49.23	377.46	
12-1kha	In 1:3 Cement Sand mortar with 3% Silica Admix		Mason Labour	0.12 0.16	725.00 520.00	87.00 83.20	Cement Sand Silica Admix	MT Cu.m. Kg	0.00625 0.01280 0.19	19,140.00 3,000.00 403.76	119.63 38.40 75.71	403.94	60.59	464.53	
12-1ga	In 1:4 cement Sand mortar		Mason Labour	0.12 0.16	725.00 520.00	87.00 83.20	Cement Sand	MT Cu.m.	0.00538 0.01460	19,140.00 3,000.00	102.97 43.80	316.97	47.55	364.52	
9/1/	CGI sheet Roofing	Sq.m.	Mason Labour	0.110 0.125	725.00 520.00	79.75 65.00	CGI Sheet Nut & bolt J - hooks Bitumen washer	Sq.m. no no no.	1.20 3.00 2.50 5.50	404.52 28.00 8.87 3.00	485.42 84.00 22.18 16.50				
	PLASTERING WORK: 20mm thick Cement Sand Plaster	Sq.m.													
12-4ka	In 1:3 Cement Sand mortar		Mason Labour	0.14 0.19	725.00 520.00	101.50 98.80	Cement Sand	MT Cu.m.	0.0096 0.0195	19,140.00 3,000.00	183.74 58.50	442.54	66.38	508.92	

