



## ANALYSIS SHEET FOR DIRECT & INDIRECT UNIT COSTS

PROJECT: **CONCRETE WORK**  
 WORK ITEM:(3.3 ) C-25 concrete  
 TOTAL QUANTITY OF WORK  
 ITEM: 1 m<sup>3</sup>

LABOUR HOURLY OUTPUT: 0.5 m<sup>3</sup> / hr.  
 EQUIPEMENT: Mixer & Vibrator  
 RESULT: 2062 Birr/m<sup>3</sup>

Material Cost (A)					Labor (B)					Equipment Cost (C)			
Type of Material	Unit	Qty *	Rate	Cost per Unit	Labor by Trade	No.	UF	Indexed Hourly Cost	Hourly Cost	Type of Equipme	No.	Hourly Rental	Hourly Cost
Cement	Qnt.	3.6	266.5	959.4	Foreman	1	0.25	33.33	8.3325	Mixer	1	15	15
Sand	m <sup>3</sup>	0.55	525.00	288.75	Mason II	1	1	22.5	22.5	Vibrator	1	10	10
Gravel (02)	m <sup>3</sup>	0.72	450.00	324	D/L	20	1	7.5	150				0
Water	m <sup>3</sup>	0.22	0.75	0.165	engineer	1	0.1	50	5				0
<b>Total (1:-01)</b>				1572.315	<b>Total (1:02)</b>				185.83	<b>Total (1:03)</b>			25

A= Materials Unit Cost 1572.315 Birr/m<sup>3</sup> B=Manpower Unit Cost 371.67 Br./m<sup>3</sup> C= Equipment Unit Cost : 50.00 Br./m<sup>3</sup>

Total of (1:02) 43.75  
 Hourly Output 0.75

Total of (1:03) 46.85  
 Hourly output: 0.75

Direct Cost of work item = A+B+C = 1993.98 Birr/m<sup>3</sup>  
 Overhead -  
 Cost: 10% 199.40 "  
 Profit Cost: 15% 299.10 "  
 Total Unit Cost : 2062 Birr/m<sup>3</sup>

Remark \_\_\_\_\_

UF: UTILIZATION FACTOR

INCLUSIVE OF WASTAGE, TRANSPORTING, HANDLING, ETC.

INCLUSIVE OF BENEFITS, TRAVEL SUBSIDES AND COST OF OVERTIME RELATED TO TARGETED OUTPUT.



					LABOUR HOURLY OUT PUT					20.00	m <sup>2</sup> /hr			
WORK ITEM				Form work										
TOTAL QTY OF WORK ITEM														
1			m2											
					EQUIPMENT									
					OVERHEAD & PROFIT					25%				
Material cost(A)					Labour cost(B)					Equipment cost(C)				
Type of material	Unit	Qty	*Rate	Cost per Unit	Labour by trade	No.	UF	Indexed Hourly	Hourly Cost	Type of Equipment	No	UF	Hourly rental rate	Hourly Cost
Formwork	m2	1	300.00	300.00	Engineers	1	0.1	50	5	Circular saw	1	2	18.50	37.00
Battens	M	1	2.00	2.00	Forman	1.00	0.25	33.33	8.33					
Beams	M	1	4.16	4.16	Carpenter	2.00	1.00	22.50	45.00					
Braces	M	2.5	2.50	6.25	A.Carpenter	3.00	1.00	15.00	45.00					
Total for 3usage				312.41	Daily labourer	5.00	1.00	10.00	50.00					
For one usage				104.14										
		(Total( A)		104.14			Total (B)		153.33			Total (C)		37.00
A =Material unit cost					B =Manpower unit cost					C = Equipment unit cost				
	Total (A)			104.14	Total of (B)		153.33			Total of (C)		37.00		
	Hourly out put				Hourly out put		4.00	38.33		Hourly out put		4.00	9.25	
Direct cost A +B +C =				151.72										
Add overhead & profit				37.93										
		Total Birr =		189.65	Take birr	190.00	/m <sup>2</sup>							



						<b>LABOUR HOURLY OUT PUT</b>				30.00	kg /hr			
<b>WORK ITEM</b>	(2.04(a) ) Reinfor cement Bar Ø6													
<b>TOTAL QTY OF WORK ITEM</b>														
Material cost(A)					Labor cost(B)					Equipment cost(C)				
Type of material	Unit	Qty	*Rate	Cost per Unit	Labor by trade	No.	UF	Indexed Hourly	Hourly Cost	Type of Equipment	N o	UF	Hourly rental rate	Hourly Cost
Reinforcement Bar Ø6	Kg	1	30.00	30.00	Forman	1.00	1/5	18.75	3.75	set of tool	3	1	0.50	1.50
Tying wire	Kg	0.2	36.75	7.35	Bar bender	1.00	1.00	15.00	15.00					
					Helper	2.00	1.00	6.25	12.50					
		Total (A)		37.35			Total (B)		31.25			Total (C)		1.50
A =Material unit cost					B =Manpower unit cost					C = Equipment unit cost				
	<u>Total (A)</u>			37.35	<u>Total of (B)</u>		<u>31.25</u>			<u>Total of (C)</u>		<u>1.50</u>		
	-				-	-	30.00	1.04		-	-	30.00	0.05	
	Hourly out put				Hourly out put					Hourly out put				
Direct cost A +B +C =				25.87										
Add overhead & profit				9.61										
		Total Birr =		48.05	<b>Take birr</b>	<b>36.50</b>	<b>0</b>	<b>birr /kg</b>						

