

READY MIX CONCRETE

** Exchange rate 1USD = TSHS 2,600

READY-MIX CONCRETE PLANT - PRODUCTION COSTS

| PLANT TYPE | PUTZEMEISTER MB-120/235 | ACTUAL | TIME TO PRODUCE |
|------------|-------------------------|--------|------------------|
| CAPACITY | 90 CuM/HR | 81 | 1CuM 1.3500 Mins |

Plant Production Maximum

Production Capacity

90

CuM/HR

Plant Production - Actual Production Capacity (90%)

81

CuM/HR

Production Capacity/Day

1,296

CuM

**** Operating 2 x 8 hrs shifts (total 16hrs)**

Production Capacity/Month

33,696

CuM

Production Capacity/Annual

404,352

CuM

| PLANT | COST PER UNIT (TSHS) | QTY | AMOUNT (TSHS) | LIFE EXP (YRS) | COST/1CuM |
|---|----------------------|-----|---------------|----------------|-----------|
| Civil Works, Engineering, Office | 37,000,000 | 1 | 37,000,000 | 50 | 4.39 |
| Batching Plant | 650,000,000 | 1 | 650,000,000 | 10 | 385.80 |
| 10 CuM capacity In-Transit Mixer Trucks | 90,000,000 | 10 | 900,000,000 | 10 | 534.19 |

| | | | | | |
|--|-------------|---|-------------|----|--------|
| Weigh Bridge | 65,000,000 | 1 | 65,000,000 | 20 | 19.29 |
| Wheel Loader | 120,000,000 | 2 | 240,000,000 | 10 | 142.45 |
| Truck Mounted Pump (XCMG -47M) | 470,000,000 | 1 | 470,000,000 | 15 | 185.98 |
| Water Chiller RECOM Model CCI100 - 100T/24HR | 170,000,000 | 1 | 170,000,000 | 15 | 67.27 |
| Generator (250 KvA) | 65,000,000 | 1 | 65,000,000 | 10 | 38.58 |
| Truck Mounted Pump (XCMG -37M) | 400,000,000 | 1 | 400,000,000 | 15 | 158.28 |
| Water Well | 15,000,000 | 1 | 15,000,000 | 25 | 3.56 |
| Security Systems | 10,000,000 | 1 | 10,000,000 | 15 | 3.96 |
| Laboratory | 20,000,000 | 1 | 20,000,000 | 10 | 11.87 |

TOTAL

3,042,000,000

1,555.61

| PERSONNEL | RATE/MONTH | QTY | AMOUNT (TSHS) | Benefits | COST/1CuM |
|-----------------|------------|-----|---------------|----------|-----------|
| General Manager | 4,000,000 | 1 | 4,000,000 | 800,000 | 285 |
| Accounting | 1,500,000 | 1 | 1,500,000 | 300,000 | 107 |
| Procurement | 800,000 | 1 | 800,000 | 160,000 | 57 |
| Supervisor | 1,000,000 | 2 | 2,000,000 | 400,000 | 142 |

| | | | | | |
|--------------------------|-----------|-----------|-------------------|------------------|-----------------|
| Security | 400,000 | 2 | 800,000 | 160,000 | 57 |
| Sales | 1,000,000 | 2 | 2,000,000 | 400,000 | 142 |
| B.P Head Operator | 750,000 | 2 | 1,500,000 | 300,000 | 107 |
| Ass. Operator | 350,000 | 2 | 700,000 | 140,000 | 50 |
| B.P Helper | 300,000 | 2 | 600,000 | 120,000 | 43 |
| Pump Operator | 700,000 | 4 | 2,800,000 | 560,000 | 199 |
| Wheel Loader Operator | 650,000 | 2 | 1,300,000 | 260,000 | 93 |
| Transit Mixer Drivers | 500,000 | 20 | 10,000,000 | 2,000,000 | 712 |
| Auto Mechanic | 400,000 | 1 | 400,000 | 80,000 | 28 |
| Auto Electrical Mechanic | 400,000 | 1 | 400,000 | 80,000 | 28 |
| Lab Technician | 600,000 | 1 | 600,000 | 120,000 | 43 |
| Hydraulic Mechanic | 400,000 | 1 | 400,000 | 80,000 | 28 |
| Workmen Insurance | | | | 337,500 | 20 |
| Safety & Training Costs | | | | 375,000 | 22 |
| TOTAL | | 45 | 29,800,000 | 6,672,500 | 2,164.80 |

| CONSUMABLES | RATE/UNIT(TSHS) | QTY | Total | COST/1CuM |
|----------------------------|-----------------|-------|-----------|-----------------|
| Electricity - Mixing Plant | 251 | 100 | 25,100.00 | 309.88 |
| Fuel - Wheel Loader | 2,800 | 15.00 | 42,000.00 | 518.52 |
| Fuel - In-Transit Mixer | 2,800 | 15.00 | 42,000.00 | 518.52 |
| Fuel - Concrete Pumps | 2,800 | 15.00 | 42,000.00 | 518.52 |
| Fuel - Generator | 2,800 | 15.00 | 42,000.00 | 518.52 |
| TOTAL | | | | 2,383.95 |

MATERIAL DENSITIES

| | | |
|----------------------|------|-------|
| Coarse Aggregates | 1470 | kg/m3 |
| Chippings | 1470 | kg/m3 |
| Fine Aggregates/Sand | 1520 | kg/m3 |
| Cement | | |

CONCRETE C30

| MATERIALS | COST/CuM OR /TON | QTY/CuM | COST/1CuM |
|----------------------|------------------|---------|------------|
| Coarse Aggregates | 106,200.00 | 0.32 | 33,984.00 |
| Chippings | 75,000.00 | 0.10 | 7,500.00 |
| Fine Aggregates/Sand | 22,500.00 | 0.25 | 5,625.00 |
| Cement (kg) | 340,000.00 | 0.33 | 112,200.00 |

| | | | |
|-----------------|-----------|-------|-------------------|
| Additive (ltrs) | 3,000.00 | 2.50 | 7,500.00 |
| Water (ltrs) | 10,000.00 | 0.165 | 1,650.00 |
| TOTAL | | | 168,459.00 |

| CONCRETE C25 | | | |
|----------------------|------------------|---------|-------------------|
| MATERIALS | COST/CuM OR /TON | QTY/CuM | COST/1CuM |
| Coarse Aggregates | 106,200.00 | 0.40 | 42,480.00 |
| Chippings | 75,000.00 | 0.10 | 7,500.00 |
| Fine Aggregates/Sand | 22,500.00 | 0.25 | 5,625.00 |
| Cement (kg) | 340,000.00 | 0.25 | 85,000.00 |
| Additive (ltrs) | 3,000.00 | 2.0 | 6,000.00 |
| Water (ltrs) | 10,000.00 | 0.165 | 1,650.00 |
| TOTAL | | | 148,255.00 |

| CONCRETE C20 | | | |
|-------------------|------------------|---------|-----------|
| MATERIALS | COST/CuM OR /TON | QTY/CuM | COST/1CuM |
| Coarse Aggregates | 106,200.00 | 0.44 | 46,728.00 |

| | | | |
|----------------------|------------|------|-------------------|
| Chippings | 75,000.00 | 0.10 | 7,500.00 |
| Fine Aggregates/Sand | 22,500.00 | 0.26 | 5,850.00 |
| Cement (kg) | 340,000.00 | 0.20 | 68,000.00 |
| Additive (ltrs) | 3,000.00 | 1.75 | 5,250.00 |
| Water (ltrs) | 10,000.00 | 0.10 | 1,000.00 |
| TOTAL | | | 134,328.00 |

SUMMARY PRODUCTION COST

| GRADE | COST/CuM |
|-------|------------|
| C30 | 174,563.36 |
| C25 | 154,359.36 |
| C20 | 140,432.36 |

MARGIN ANALYSIS

| SELL PRICE/CuM | GROSS PROFIT % |
|----------------|----------------|
| 260,000.00 | 48.9% |
| 250,000.00 | 62.0% |
| 240,000.00 | 70.9% |

