

PROJECT REPORT

Of

CEMENT GRILL

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding **Cement Grill**.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



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PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : xxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxx
- Pin: xxxxxxx State: xxxxxxxx
- Mobile xxxxxxx
- 5 Product and By Product : **CEMENT GRILLS**
- 6 Name of the project / business activity proposed : **CEMENT GRILL MAKING UNIT**
- 7 Cost of Project : Rs.11.93 Lakhs
- 8 Means of Finance
 Term Loan Rs.7.74 Lakhs
 Own Capital Rs.1.19 Lakhs
 Working capital Rs.3 Lakhs
- 9 Debt Service Coverage Ratio : 2.77
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 31%
- 13 Employment : 8 Persons
- 14 Power Requirement : 30.00 HP
- 15 Major Raw materials : Portland cement, Sand, MS Rod & wire
- 16 Estimated Annual Sales Turnover (Max Capacity) : 65.44 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
	Own/Rented
Land	
Building /Shed 800 Sq ft	4.00
Plant & Machinery	3.60
Furniture & Fixtures	1.00
Working Capital	3.33
Total	11.93

MEANS OF FINANCE

Particulars	Amount
Own Contribution	1.19
Working Capital(Finance)	3.00
Term Loan	7.74
Total	11.93

CEMENT GRILL

Introduction: Cement grills have occupied an important role in the building constructions. Cement grills are pierced panels with a thickness of not less than 2.5 cm. They are used in construction of houses, buildings etc. as partition panels in the walls and ventilators. Very often cement grill is a better substitute for a window. It lets in general subdued light. It also deals with ventilation but prevents rain from entering. It is secured from thieves or animals. It of different designs and shapes are made according to needs. It is cheaper than wood or steel jali.



Market Potential: The demand for cement grills increases correspondingly with the increase of building construction activity which is fast growing in the country. Apart from low cost, other contributing factors to their demand are fascinating designs and functional qualities in the market. Though the consumption of cement grill in Bihar state is about 1,00,00,000 sq.ft in a year, there are around fifty to sixty units running to meet the

requirements. The gap in demand & supply is met by the product transported from other adjoining states like Uttar Pradesh, West Bengal and Jharkhand. There is a good scope to develop MSE units in this line of manufacture for local consumption.

Machines & equipments: Major machines & equipments are:

Name	Qty.	Price
Moulds/frames (iron)	1	90000
Wooden planks	1	15000
Concrete hand mixer	1	40000
Vibrator with 1 Hp motor and starter	1	50000
Curing tank 10'x5'x3'	2	80000
Pollution control equipment	LS	25000
Other tools & equipments	LS	60000

Raw material: Major raw material requirement are:

1. Portland cement
2. Sand
3. MS Rod & wire
4. Other materials

Manufacturing Process: Though not much advanced technology is employed in the manufacturing of cement grills, the techniques in designing and shaping have developed since these items find use in the multi-storeyed building as ventilators and partition panels in walls.

The process of manufacturing is simple, as the technical aspects involved are very less and do not require any heavy machineries. One concrete hand mixture (local made) and iron or wooden moulds are required for the manufacture of cement grills.

The moulds are lubricated with kerosene oil and kept ready for moulding. The cement and sand in proper ratio (i.e. 1:3) with proportionate water is mixed to make concrete mixer. The moulds are then filled with the concrete mixer duly providing reinforcement with M S rods and wires at suitable depth. The excess material spread over the mould is removed and the surface is smoothed with the help of a trowel. The grills in different shapes and designs are then removed about 24 hours. These are then immersed in water for 14 days for curing in order to develop strength and make more durable.

Area:

The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and auxiliary like Generator setup. Also some of the area of building is required for office staff facilities, documentation, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 800 to 1200Sqft. Civil work will cost around 4 Lac (approx.)

Power Requirement -The power consumption required to run all the machinery could be approximated as 30 hp.

Manpower Requirement- There are requirement of skilled machine operators to run the machine set. Experience quality engineers are required for desired quality control. Some helpers are also required to transfer the material from one work station to other. Office staffs are required to maintain the documentation. The approximate manpower required is 8 including 1 Supervisor, 1 Plant operator, 1 unskilled worker, 1 Helper and 1 security Guard. 3 Skilled worker including Accountant, Manager and sales personal each.

Approvals & Registration Requirement:

Basic registration required in this project:

- GST Registration
- Udyog Aadhar Registration (Optional)
- Choice of a Brand Name of the product and secure the name with Trademark if require

Bank Term Loan: Rate of Interest is assumed to be at 11%

Depreciation: Depreciation has been calculated as per the Provisions of Income Tax Act, 1961

Implementation Schedule:

S No.	Activity	Time required
1.	Acquisition of premises	1-2 Months
2.	Procurement & installation of Plant & Machinery	1-2 Months
3.	Arrangement of Finance	1.5-2 Months
4.	Requirement of required Manpower	1 Month
5.	Commercial Trial Runs	1 Month
	Total time Required (some activities shall run concurrently)	5-6 Months

FINANCIALS

PROJECTED CASH FLOW STATEMENT					
PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Own Contribution	1.19	-			
Reserve & Surplus	2.11	3.18	4.72	6.97	8.67
Depriciation & Exp. W/off	1.04	0.91	0.80	0.70	0.61
Increase In Cash Credit	3.00				
Increase In Term Loan	7.74	-	-	-	-
Increase in Creditors	0.67	0.11	0.08	0.08	0.08
TOTAL :	15.75	4.20	5.59	7.75	9.36
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	8.60	-	-	-	-
Increase in Stock	0.85	0.15	0.14	0.14	0.15
Increase in Debtors	3.61	0.70	0.70	0.74	0.79
Repayment of Term Loan	0.86	1.72	1.72	1.72	1.72
Taxation	-	-	-	1.74	2.17
Drawings	1.00	1.50	2.00	2.50	3.00
TOTAL :	14.92	4.07	4.55	6.85	7.83
Opening Cash & Bank Balance	-	0.82	0.96	1.99	2.89
Add : Surplus	0.82	0.13	1.04	0.90	1.53
Closing Cash & Bank Balance	0.82	0.96	1.99	2.89	4.42

PROJECTED BALANCE SHEET					
PARTICULARS	I	II	III	IV	V
SOURCES OF FUND					
Capital Account					
Opening Balance	-	2.30	3.98	6.70	9.43
Add: Additions	1.19	-	-	-	-
Add: Net Profit	2.11	3.18	4.72	5.23	6.50
Less: Drawings	1.00	1.50	2.00	2.50	3.00
Closing Balance	2.30	3.98	6.70	9.43	12.94
CC Limit	3.00	3.00	3.00	3.00	3.00
Term Loan	6.88	5.16	3.44	1.72	-
Sundry Creditors	0.67	0.78	0.86	0.93	1.01
TOTAL :	12.85	12.92	14.00	15.09	16.95
APPLICATION OF FUND					
Fixed Assets (Gross)	8.60	8.60	8.60	8.60	8.60
Gross Dep.	1.04	1.95	2.74	3.44	4.05
Net Fixed Assets	7.56	6.65	5.86	5.16	4.55
Current Assets					
Sundry Debtors	3.61	4.31	5.01	5.75	6.54
Stock in Hand	0.85	1.00	1.14	1.28	1.43
Cash and Bank	0.82	0.96	1.99	2.89	4.42
TOTAL :	12.85	12.92	14.00	15.09	16.95

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PROJECTED PROFITABILITY STATEMENT					
PARTICULARS	I	II	III	IV	V
A) SALES					
Gross Sale	36.11	43.13	50.08	57.52	65.44
Total (A)	36.11	43.13	50.08	57.52	65.44
B) COST OF SALES					
Raw Material Consumed	20.03	23.36	25.70	28.04	30.37
Electricity Expenses	2.05	2.28	2.51	2.74	2.97
Repair & Maintenance	1.81	2.80	4.01	4.60	5.89
Labour & Wages	4.79	5.36	6.17	7.09	8.08
Depreciation	1.04	0.91	0.80	0.70	0.61
Cost of Production	29.71	34.72	39.18	43.16	47.92
Add: Opening Stock /WIP	-	0.52	0.61	0.71	0.82
Less: Closing Stock /WIP	0.52	0.61	0.71	0.82	0.93
Cost of Sales (B)	29.19	34.63	39.08	43.06	47.81
C) GROSS PROFIT (A-B)	6.91	8.50	11.00	14.46	17.62
	19.15%	19.71%	21.97%	25.14%	26.93%
D) Bank Interest (Term Loan)	0.84	0.69	0.50	0.31	0.12
ii) Interest On Working Capital	0.33	0.33	0.33	0.33	0.33
E) Salary to Staff	3.28	3.44	3.96	4.55	5.23
F) Selling & Adm Expenses Exp.	0.36	0.86	1.50	2.30	3.27
TOTAL (D+E)	4.81	5.32	6.28	7.49	8.95
H) NET PROFIT	2.11	3.18	4.72	6.97	8.67
	5.8%	7.4%	9.4%	12.1%	13.3%
I) Taxation	-	-	-	1.74	2.17
J) PROFIT (After Tax)	2.11	3.18	4.72	5.23	6.50
Raw Material Consumed	Capacity		Amount (Rs.)		
	Utilisation				
I	45%		20.03		
II	50%		23.36	5% Increase in Cost	
III	55%		25.70	5% Increase in Cost	
IV	60%		28.04	5% Increase in Cost	
V	65%		30.37	5% Increase in Cost	

COMPUTATION OF MAKING OF CEMENT GRILL			
Item to be Manufactured	Cement Grill		
Manufacturing Capacity per day		800	sqft.
No. of Working Hour		8	
No of Working Days per month		25	
No. of Working Day per annum		300	
Total Production per Annum		2,40,000	sqft.
Total Production per Annum		2,40,000	sqft.
Year		Capacity Utilisation	CEMENT GRILLS
I		45%	1,08,000.00
II		50%	1,20,000.00
III		55%	1,32,000.00
IV		60%	1,44,000.00
V		65%	1,56,000.00

COMPUTATION OF RAW MATERIAL

Item Name	Quantity of Raw Material	Unit	Unit Rate of	Total Cost Per Annum (100%)
Portland cement	260.00	MT	6,500.00	16,90,000.00
Sand	32,000.00	Cu. Ft.	30.00	9,60,000.00
MS Rod & wire	48.00	MT	35,000.00	16,80,000.00
Other materials				1,20,000.00
Total				44,50,000.00
Total Raw material in Rs lacs				44.50

COMPUTATION OF SALE

Particulars	I	II	III	IV	V
Op Stock	-	1,800.00	2,000.00	2,200.00	2,400.00
Production	1,08,000.00	1,20,000.00	1,32,000.00	1,44,000.00	1,56,000.00
	1,08,000.00	1,21,800.00	1,34,000.00	1,46,200.00	1,58,400.00
Less : Closing Stock(5 Days)	1,800.00	2,000.00	2,200.00	2,400.00	2,600.00
Net Sale	1,06,200.00	1,19,800.00	1,31,800.00	1,43,800.00	1,55,800.00
Sale Price per ft	34.00	36.00	38.00	40.00	42.00
Sale (in Lacs)	36.11	43.13	50.08	57.52	65.44

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL					
PARTICULARS	I	II	III	IV	V
Finished Goods					
(5 Days requirement)	0.52	0.61	0.71	0.82	0.93
Raw Material					
(5 Days requirement)	0.33	0.39	0.43	0.47	0.51
Closing Stock	0.85	1.00	1.14	1.28	1.43

COMPUTATION OF WORKING CAPITAL REQUIREMENT			
Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	0.85		
Less:			
Sundry Creditors	0.67		
Paid Stock	0.19	0.02	0.17
Sundry Debtors	3.61	0.36	3.25
Working Capital Requirement			3.42
Margin			0.38
MPBF			3.42
Working Capital Demand			3.00

BREAK UP OF LABOUR				
Particulars	Wages	No of	Total	
	Per Month	Employees	Salary	
Supervisor	12,000.00	1	12,000.00	
Plant Operator	10,000.00	1	10,000.00	
Unskilled Worker	6,000.00	1	6,000.00	
Helper	4,000.00	1	4,000.00	
Security Guard	6,000.00	1	6,000.00	
			38,000.00	
Add: 5% Fringe Benefit			1,900.00	
Total Labour Cost Per Month			39,900.00	
Total Labour Cost for the year (In Rs. Lakhs)		5	4.79	

BREAK UP OF SALARY				
Particulars	Salary	No of	Total	
	Per Month	Employees	Salary	
Manager	10,000.00	1	12,000.00	
Accountant cum store keeper	8,000.00	1	8,000.00	
Sales	6,000.00	1	6,000.00	
Total Salary Per Month			26,000.00	
Add: 5% Fringe Benefit			1,300.00	
Total Salary for the month			27,300.00	
Total Salary for the year (In Rs. Lakhs)		3	3.28	

COMPUTATION OF DEPRECIATION					
Description	Land	Building/shed	Plant & Machinery	Furniture	TOTAL
Rate of Depreciation		10.00%	15.00%	10.00%	
Opening Balance	Leased		-	-	-
Addition	-	4.00	3.60	1.00	8.60
	-	4.00	3.60	1.00	8.60
		-	-	-	
TOTAL		4.00	3.60	1.00	8.60
Less : Depreciation	-	0.40	0.54	0.10	1.04
WDV at end of Ist year	-	3.60	3.06	0.90	7.56
Additions During The Year	-	-	-	-	-
	-	3.60	3.06	0.90	7.56
Less : Depreciation	-	0.36	0.46	0.09	0.91
WDV at end of IInd Year	-	3.24	2.60	0.81	6.65
Additions During The Year	-	-	-	-	-
	-	3.24	2.60	0.81	6.65
Less : Depreciation	-	0.32	0.39	0.08	0.80
WDV at end of IIIrd year	-	2.92	2.21	0.73	5.86
Additions During The Year	-	-	-	-	-
	-	2.92	2.21	0.73	5.86
Less : Depreciation	-	0.29	0.33	0.07	0.70
WDV at end of IV year	-	2.62	1.88	0.66	5.16
Additions During The Year	-	-	-	-	-
	-	2.62	1.88	0.66	5.16
Less : Depreciation	-	0.26	0.28	0.07	0.61
WDV at end of Vth year	-	2.36	1.60	0.59	4.55

REPAYMENT SCHEDULE OF TERM LOAN						11.0%	
Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	7.74	-	7.74	0.21	-	7.74
	IInd Quarter	7.74	-	7.74	0.21	-	7.74
	IIIRD Quarter	7.74	-	7.74	0.21	0.43	7.31
	Ivth Quarter	7.31	-	7.31	0.20	0.43	6.88
					0.84	0.86	
II	Opening Balance						
	Ist Quarter	6.88	-	6.88	0.19	0.43	6.45
	IInd Quarter	6.45	-	6.45	0.18	0.43	6.02
	IIIRD Quarter	6.02	-	6.02	0.17	0.43	5.59
	Ivth Quarter	5.59		5.59	0.15	0.43	5.16
					0.69	1.72	
III	Opening Balance						
	Ist Quarter	5.16	-	5.16	0.14	0.43	4.73
	IInd Quarter	4.73	-	4.73	0.13	0.43	4.30
	IIIRD Quarter	4.30	-	4.30	0.12	0.43	3.87
	Ivth Quarter	3.87		3.87	0.11	0.43	3.44
					0.50	1.72	
IV	Opening Balance						
	Ist Quarter	3.44	-	3.44	0.09	0.43	3.01
	IInd Quarter	3.01	-	3.01	0.08	0.43	2.58
	IIIRD Quarter	2.58	-	2.58	0.07	0.43	2.15
	Ivth Quarter	2.15		2.15	0.06	0.43	1.72
					0.31	1.72	
V	Opening Balance						
	Ist Quarter	1.72	-	1.72	0.05	0.43	1.29
	IInd Quarter	1.29	-	1.29	0.04	0.43	0.86
	IIIRD Quarter	0.86	-	0.86	0.02	0.43	0.43
	Ivth Quarter	0.43		0.43	0.01	0.43	0.00
					0.12	1.72	

Door to Door Period 60 Months
Moratorium Period 6 Months
Repayment Period 54 Months

CALCULATION OF D.S.C.R					
PARTICULARS	I	II	III	IV	V
CASH ACCRUALS	3.15	4.09	5.51	5.93	7.11
Interest on Term Loan	0.84	0.69	0.50	0.31	0.12
Total	3.99	4.78	6.01	6.23	7.23
REPAYMENT					
Repayment of Term Loan	0.86	1.72	1.72	1.72	1.72
Interest on Term Loan	0.84	0.69	0.50	0.31	0.12
Total	1.70	2.41	2.22	2.03	1.84
DEBT SERVICE COVERAGE RATIO	2.35	1.99	2.71	3.07	3.93
AVERAGE D.S.C.R.			2.77		

COMPUTATION OF ELECTRICITY				
(A) POWER CONNECTION				
Total Working Hour per day		Hours	8	
Electric Load Required		HP	30	
Load Factor			0.7460	
Electricity Charges		per unit	7.50	
Total Working Days			300	
Electricity Charges				4,02,840.00
Add : Minimim Charges (@ 10%)				
(B) DG set				
No. of Working Days			300	days
No of Working Hours			0.3	Hour per day
Total no of Hour			90	
Diesel Consumption per Hour			8	
Total Consumption of Diesel			720	
Cost of Diesel			65.00	Rs. /Ltr
Total cost of Diesel			0.47	
Add : Lube Cost @15%			0.07	
Total			0.54	
Total cost of Power & Fuel at 100%				4.57
	Year	Capacity		Amount
				(in Lacs)
	I	45%		2.05
	II	50%		2.28
	III	55%		2.51
	IV	60%		2.74
	V	65%		2.97

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