

**APPLICATION FOR MINING OF MINOR MINERALS**

**UNDER CATEGORY 'B2'  
for less than and equal to five hectare**

**Basic Information:-**

1	Name of the Mining Lease site:	<b>Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri .</b> <b>Gut No- 227, Gangewadi, Taluka-S Solapur &amp; District– Solapur, Maharashtra</b>	
2	Location / site (GPS Co-ordinates):	17°48'49.19"N 17°48'47.68"N 17°48'46.33"N 17°48'47.59"N	75°58'15.15"E 75°58'22.62"E 75°58'22.40"E 75°58'14.22"E
3	Size of the Mining Lease (Hectare):	1Hector	
4	Capacity of Mining Lease (TPA):	48646t/a average	
5	Period of Mining Lease:	5 years	
6	Expected cost of the Project:	Rs.25 Lakh	
7	Contact Information:	<b>Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri</b> <b>Gut No- 227, Gangewadi, Taluka-S Solapur &amp; District– Solapur, Maharashtra</b>	

**Signature  
Name  
Address**

# Pre-Feasibility Report (PFR) For Stone Quarry

Gut No- 227, Gangewadi, Taluka- S  
Solapur & District – Solapur,  
Maharashtra

Of

Gangewadi Basalt Stone  
Quarry for Shri. Prakash V.  
Mantri

Prepared by

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(QCI/NABET/ENV/ACO/16/06/0172)

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## Chapter 1 - Brief introduction

Stone Quarry of Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri owner of **Gut No- 227, Gangewadi, Taluka – S Solapur & District- Solapur** over a total area of 1Hector. The said land as been converted as non-agriculture for the purpose of small scale industries.

Accordingly, the quarry plan is prepared along with application form 1, PFR & EMP for the approval.

### 1.1 Need for the project:

The region is economically backward mostly depends on seasonal forming. The per capita income of the villagers is much below the national average. As a result of this project various facilities like educational medical social benefits will get augmented in the area.

In view of the above, the Stone Quarry of Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri intends to produce stone from **Gut No- 227, Gangewadi, Taluka - S Solapur & District- Solapur, Maharashtra**

1.	Reserve availability	Sufficient
2.	Infrastructure for the production	will be organized
3.	Quarry operation	Modern technology
4.	Environmental status	Scientifically maintained
5.	Environmental Management Plan	Scientifically maintained

The above details are given in the following sections.

## 1.2 Location & Accessibility

The quarry falls in **Gut No- 227, Gangewadi, Taluka – S Solapur & District- Solapur, Maharashtra.**

Google Image



Source: Google Earth

## **Chapter 2 :**

### **Introduction of the project / background information.**

#### **2.1 Identification of project and project proponent.**

Stone Quarry of Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri is having crusher, bricks manufacturing & other building materials to meet the requirement of the locals. Besides, experienced in the field of building stones extraction, road metal extraction. Considering the experience and request and to meet the raw materials for our own quarry has been applied to GoM.

#### **2.2 Brief description of the nature of the project**

Stone Quarry of Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri quarry will be operated for building stone in a systemic way its salient features are given below.

#### **2.3 Imports vs. Indigenous production.**

There is no need of any material by importing for this project.

#### **2.4 Export Possibility.**

There are no possibilities for export the material as it is being used in domestic purpose.

#### **2.5 Domestic / export Markets.**

There is a good demand for local market.

#### **1.6 Employment Generation (Direct & indirect due to the project)**

The man power requirement for the Stone Quarry of Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri

**Table 1 Man power requirement**

Sr.No	Designation in no.	Proposed in no.
1	Manager	1
2	Blaster	1
3	Driller	2
4	Driver	1
5	Operator	4
6	Staff	1
7	Watchman	2

Direct employment for the project is 12no., whereas indirect employment will be more than 60 people considering 5 persons dependence on direct employment.



## Chapter 3: Project description

### 3.1 Size or magnitude of operation.

Stone Quarry of Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri quarry covering an area of 1Hector only. All the quarry activities are confined within this area. The production of building stones proposed to be 48646 t/A. The operation will be carried out by manual method.

From the above it could be summarized that the quarry operations and connected activities are in the micro level and there is no impact on environmental parameters.

### 3.2 Project description with process details

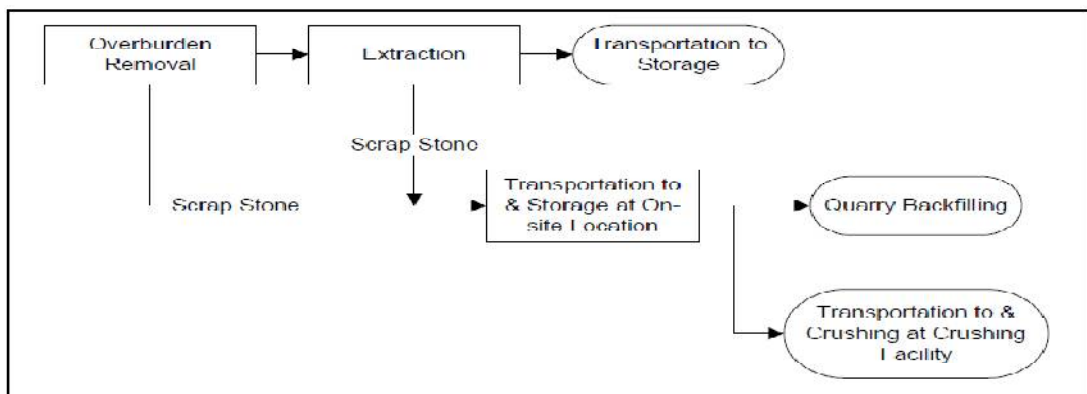
(a schematic diagram/ flow chart showing the project layout, components of the project etc. should be given)

Development and extraction of building stones is planned from this quarry. Plain quarrying with single/high bench/low bench/multiple high bench/low bench.

Though the above quarrying methods are adopted as per the site condition, but the general procedure's to be adopted in development and extraction of building stones is

- Clearing of bushes, removal of topsoil and overburden weathered rock to expose the sheet rock or boulder.
- Developing face by key cut or channels cut for extraction of building stone from sheet rock.
- The building stone which recovered will be directly supplied to the buyer and sent to crusher to bring it to the required size specification by the buyer.

Figure 1



### **3.3 Climate, rainfall, geology & reserves**

The climate of the district is characterized by a hot summer and general dryness throughout the year except during the south-west monsoon season, i.e., June to September. The mean minimum temperature is 20°C and mean maximum temperature is 38-40°C.

#### **Climate and Rainfall:**

The normal annual rainfall over the district varies from 600 mm to about 850 mm. The average annual rainfall for the period 2000 to 2009 ranges from 424 mm to 745 mm.

#### **Geology:**

The district forms part of Deccan Plateau, locally known as Balaghat Plateau, with slope towards southwest and south and has a varied topography consisting of hills, plains and undulating topography.

#### **Soil Cover:**

The soil of the district is basically derived from Deccan Trap Basalt and the district is broadly classified into three major soil types. Shallow Soils occur in small patches in western and northwestern parts of the district. These soils are light brown to dark grey in colour and loamy to clayey loamy in texture.

#### **Basalt**

Basalt is the predominant rock type found in this area. It is well exposed all over the area. The entire deposit is a flat terrain, the exhibit foliation predominantly on the weathered surface. The rock having medium grain size and the color varies from grey to pale grey and shows typical greasy luster. Since, it is a soft rock it is suitable for building stone purpose.

#### **Reserves**

Based on study carried out, 95% of Basalt production from the ROM (Run of Mining) considered as production. The corresponding Geological plan & Sections is enclosed in quarry plan.

### **3.4 Quarrying method**

In the 1<sup>st</sup>, 2<sup>nd</sup> & 3<sup>rd</sup> year one slice advancing upto the quarry boundary for the production of 48646 t/A. In the 4<sup>th</sup> & 5<sup>th</sup> year second slice will be advancing. The corresponding Development &

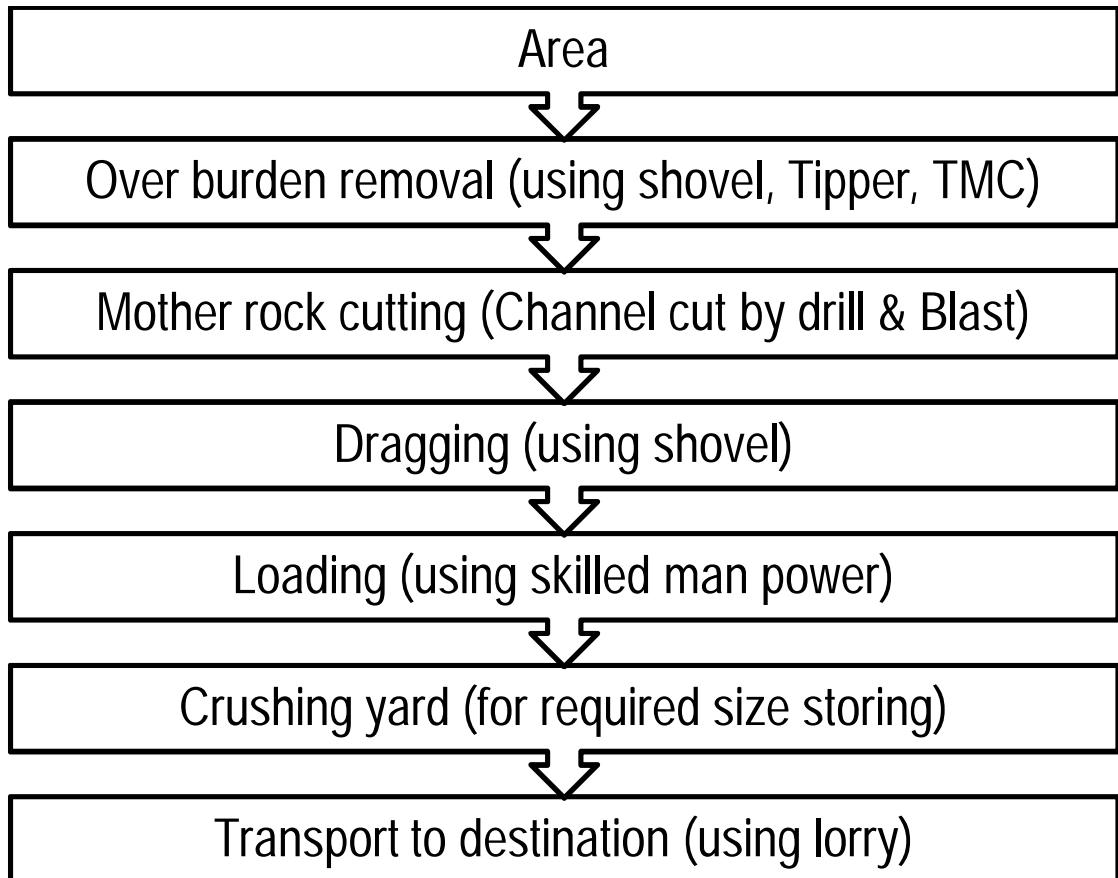
Production plan & section and the details year wise, section wise & level wise production and development proposed for the next five years is enclosed in **quarry plan**. (Mining Plan – Part A)

**Slope quarrying:**

In order to maintain the safety of the pit and movement of machinery, the quarry bench height of 5 m will be maintained and width of 7 m will be maintained. The overall bench slope will be maintained 80<sup>0</sup>to the horizontal as it is a hard rock formation.

Schematic representations of the feasibility drawing which give information of EIA purpose.

Schematic representations for quarrying



## Chapter 4 Site analysis

### 4.1 Connectivity

The quarry falls in **Gut No- 227, Gangewadi, Tal- S Solapur & District –Solapur, Maharashtra**

#### Nearest Road :

- a. Distance from village : 1.7km
- b. Distance from Railway line : 17km
- c. Major district road- : Not within study area
- d. State Highway : 0.8km
- e. National highway : 11 km

### 4.2 Land Form, Land use and Land ownership.

The Stone Quarry of Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri stone quarry area is a pattaland is owned Stone Quarry of Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri The 7/12 extract is enclosed with application form 1M and attached in Mining Plan. The entire area covered with Basalt deposit. There is no infrastructure in the area.

### 4.2 Topography

Solapur lies in the Southern part of state .It lies on the Deccan plateau, about 520 mtr above sea level. There is no Forest, Buildings & Electric Line etc in the area.

### 4.3 Soil classification

The Northern portion of the area is covered with soil at a depth of 0.2 to 1.0 m at top. This is block cottons soil, which suitable for agriculture & afforestation purpose.

### 4.4 Climatic data from secondary sources.

#### Base line

Semi-arid to humid climatic conditions are the prevailing nature of the study area. The annual rain fall varies. It is observed that rain fall is mainly received during the period Aug. to Sept.

#### Socio-economic

Socio economic study is an important integral part of environmental study. Existing as well as upcoming projects will

have some impact (adverse or beneficial) on the environment. The impact may alter the socio-economic status of the society in dual ways.

- From the above statement it is clear that there is no impact on Environmental parameters from the Stone Quarry of Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri stone quarry project.
- The quarry activities involve only extraction of stone from mother rock, which does not impact on environmental parameter.

## Chapter 5 Planning brief

This is a quarry operation, which involves removal of overburden and extraction of building stone from mother rock by using required machineries. The building stone extracted will be transported to local constructions activities.

### 5.1 Population Projection

The project involves only 10 manpower's, who are all engaged from the local peoples.

### 5.2 Land use planning (breakup along with green belt etc).

**Post Mining land use Plan** From the proposed quarry activity it is expected to be broken about 1Hector land in the life of the quarry. As result slight change will be expected on land use. Which could be managed better way what it was in the post miningland use plan as per quarry plan.(Mining Plan- Part A)

## **Chapter 6 Proposed infrastructure**

### **6.1 Industrial Area (Processing Area).**

The Stone Quarry of Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri and quarry area is 1Hector only. There is no proposal for additional area for the project.

### **6.2 Residential Area (Non-Processing Area).**

There is no any proposal for residential area connected to this Stone Quarry of Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri stone quarry.

### **6.3 Green Belt.**

An area proposed for green belt all along the boundary and outside the an area proposed for afforestation all along the road side.

### **6.4 Connectivity (Traffic and Transportation Road/Rail/Metro/Water ways etc).**

The area can be approached in all season. The carrying capacity of the existing road from area is good enough. The building stones production out to be only avg. 10 truck /day will be added to the general traffic density. This additional traffic of 5 truck will not be impact on traffic density as the road carrying capacity is more than 100 truck/day. There is no proposal for rail transport, water way transport, metro transport for this project.

### **6.5 Solid Waste Management**

From the project waste will be generated, out of which about 40% will be used for environmental protective works such as gully plugs, retaining wall construction and remaining 60% will be stocked in the stock yard and which will be protected by construction of retaining wall all along the toe of the dump, garland drains at the higher level.

### **6.6 Power Requirement & Supply / source.**

There is no proposal for electricity power for this project.



## **Chapter 7 Rehabilitation and Resettlement (R & R) plan**

The project is located in the pattaland, covered with building stones. There is no any displacement of people, monuments, and residences. Therefore, rehabilitation and resettlement does not arise.

## **Chapter 8 Environment Management Plan**

In order to attaining the desired objective of environmental quantity and sustainable quarry operations in and around the Stone Quarry of Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri building stone quarry environmental management is must. The principal environmental parameters such as air, water, noise & land are considered for impact assessment and management.

### **8.1 Air Pollution Control Measures:**

- Water sprinkling on haulage roads to suppress dust.
- Maintenance of haulage road slopes, removal of accumulated dusty Material on road regularly.
- Regular maintenance of earthmoving equipments and vehicles.
- Restriction on speed of vehicles.
- Greenbelt development.
- Periodical monitoring of air quality.

### **8.2 Noise Mitigative Measures**

- Regular maintenance of machinery and vehicles.
- Greenbelt development along the roads, boundary & crusher.
- Providing ear muffles to the workers.

### **8.3 Water pollution control measures**

- Check dams will be constructed at different locations across the nallah outside the where ever necessary.
- Ground water recharging and rain water harvesting systems will be adopted in the quarry area.
- Drains shall be constructed to collect storm water and divert the same to the nearby nallahs.
- Adequate retention wall will be constructed all along the toe of the dump.
- Garland drains formation in the appropriate place.
- Afforestation will be carried out in consultation with local forest authority for selection of species, in the green belt area, barren area, all along the road side and inactive dump areas.

## **8.4 Land Management**

As result slight change will be expected on land use. From the above chart it is clear that an area will be utilized for quarrying activity will be used as water pond and remaining will be used for agriculture purpose.

## **Chapter 9 Analysis of proposal**

### **(Recommendations)**

The building stones activity will help in improvement of the economic status of the people around the area.

- Building stones activities will benefit the local people and boost up the local market.
- The building stones reserves of this area are economically viable.
- The building stones activities will provide socio-economic benefits to the local peoples with direct & indirect employment opportunities. The regional benefits to the state in the form of Royalty, Cess, Taxes etc.,
- Lessee will provide medical facility to all the employees and medical check-up camps to the local villagers, contribution of funds for social and cultural programmes etc.
- Lessee will protect the economic interest of the villagers of the affected area through their capability build-up for sustainable development.
- Hence, there will be an overall a positive impact on socio-economics of people living in the villages.

This project will meet the development needs of the local demand without causing any negative influence on the environment. It could be summarized that the development of Stone Quarry of Gangewadi Basalt Stone Quarry for Shri. Prakash V. Mantri stone Quarry will have a positive impact on the socio-economics of the area and lead to overall sustainable development.