

1. BASIC PROJECT INFORMATION

1.1 Project Information

Table 1.1 Project Information

Name of Project	Mabuhay FilCement Inc. Cement Grinding and Packing Facility
Location	Calaca Industrial Seaport Zone, Barangay Lumbang Calzada, Calaca, Batangas
Nature of Project	Cement Grinding and Packing Manufacturing Plant
Size/ Scale of Project	MFI will grind clinker and other Non-metallic material (e.g. Limestone, gypsum, and pozzolanic material) to final product cement, and will be packed into 40 kg bags, one (1) Ton Cement Bags, or directly to Bulk Trucks. The estimated production capacity of the Grinding Plant is 8,800 MT per day, about 220,000 bags per day.

1.2 Proponent Profile

Table 1.2 Proponent Profile

Proponent Name	The Mabuhay FilCement Inc. Cement Grinding and Packing Facility Project is owned and will be managed by Mabuhay FilCement Inc. (MFI), as the project proponent.
Address	Doña Emilia Benedicto Bldg. No. 7 E. Benedicto St. Zapatera, Cebu City, 6000, Cebu, Philippines
Authorized Signatory / Representative	Enrison T. Benedicto Chief Executive Officer Fax No: 032-2558200 enrison@mfcement.com
EIS Preparer	Philippine Center for Environmental Awareness and Sustainability, Inc. (PCEAS)

2. PROJECT DESCRIPTION

2.1 Project Location and Area

The Mabuhay FilCement Inc. Grinding and Cement Packing Facility will be established in Calaca Industrial Seaport Zone, Barangay Lumbang Calzada, Calaca, Batangas. It will cover a total land area of **39,640 sq. m. (3.96 hectares)** which is identified as Phase III-B of Lot Plan of the industrial seaport zone.

Figure 2.1 shows the project location and Figure 2.2 shows the vicinity of the project area.



Figure 2.1. Project Location

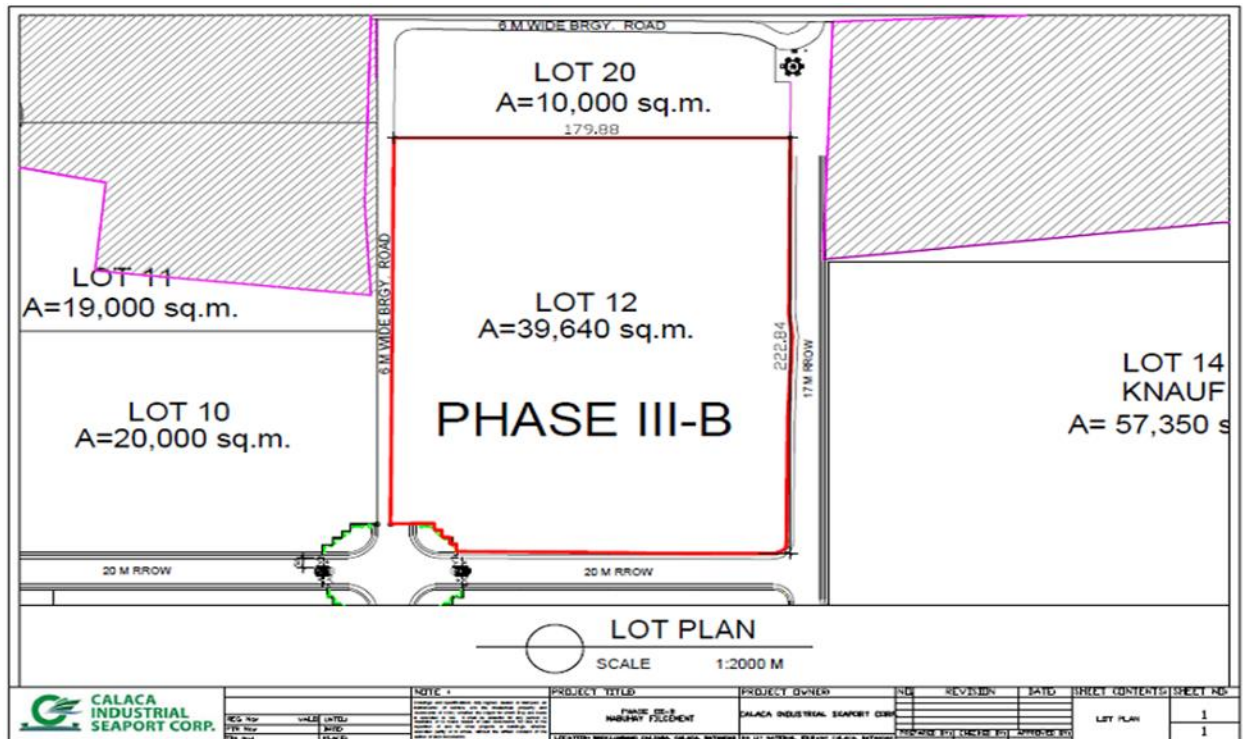


Figure 2.2 Vicinity of the Project Area/Location

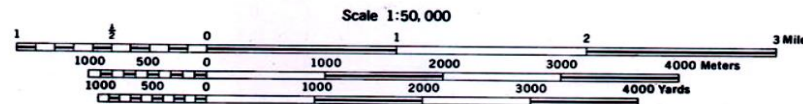
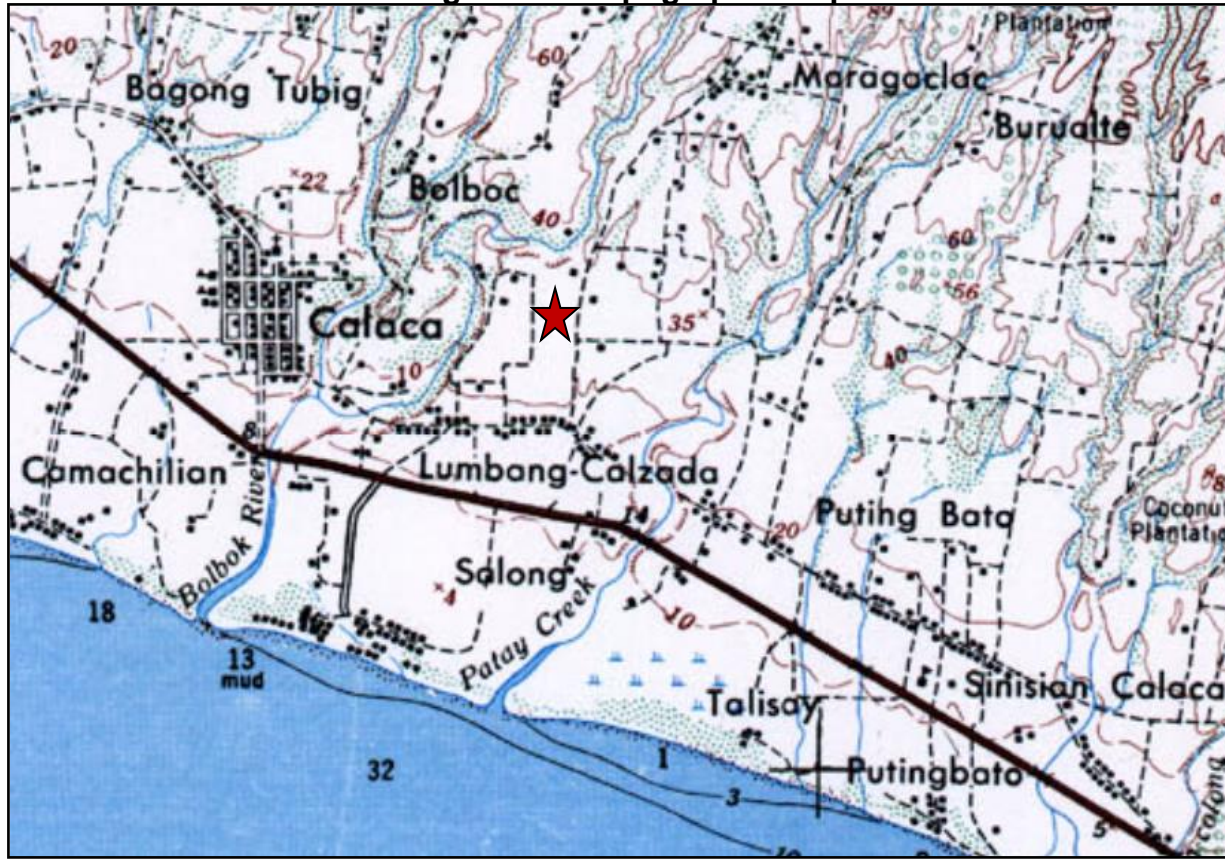
Delineation of Primary and Secondary Impact Areas:

Based on DAO 03-30, Direct and indirect impact areas serve as the main reference for the determination of stakeholders who may be potentially affected by the project. Direct impact Area (DIA) is defined as the area where ALL project facilities are proposed to be constructed/situated and where all operations are proposed to be undertaken. For most projects, the DIA is equivalent to the total area applied for an ECC. In this case, the primary impact area of the cement grinding and packing plant is the host barangay which is Barangay Lumbang Calzada, Calaca, Batangas. The cement grinding and packing facility premises comprise a total area of 3.96 hectares.

Indirect Impact Area (IIA) is defined as the area OUTSIDE the project site such that the Total Suspended Solids and other pollutant discharges from the project drains or are transported towards downstream communities. For the cement grinding and packing facility, the indirect impact areas are the areas affected by the sedimentation / siltation and dust emissions of the plant with respect to the changing wind directions, wind speed and other criteria. The identified affected barangays are Lumbang Calsada, Salong, Puting Bato, Talisay, Camachilhan, Calaca Town Proper and Bolboc (1km radius impact areas of the project).

See **Figure 2.3 and 2.4** for the Topographic Map showing Drainage System and the Direct and Indirect Impact Areas of the Cement Grinding and Packing Facility respectively.

Figure 2.3. Topographic Map

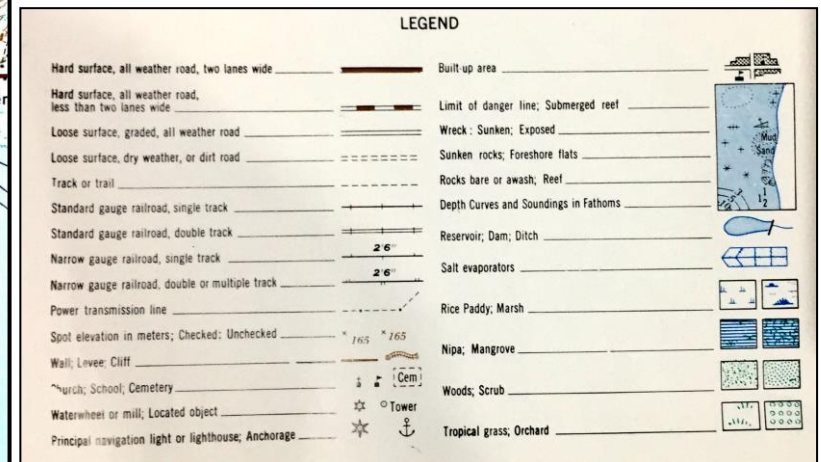
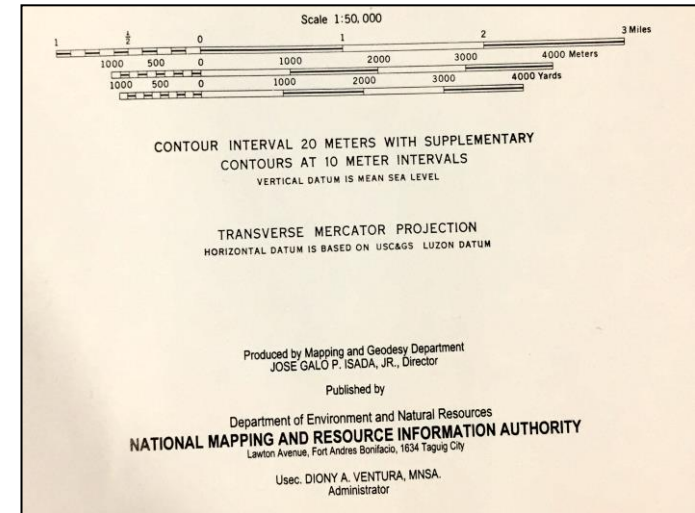


CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY
CONTOURS AT 10 METER INTERVALS
VERTICAL DATUM IS MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM IS BASED ON USC&GS LUZON DATUM

★ PROJECT SITE
Latitude: 13°55'51.03"
Longitude: 120°49'28.26"

Figure 2.4 Impact Areas of the Cement Grinding and Packing Facility
CALACA MAP SHOWING DIRECT AND INDIRECT IMPACTED AREAS



2.2 Project Rationale

Nowadays, various infrastructure developments are being undertaken in different parts of the country. In line with this, affordable and excellent quality raw materials must be considered in building different infrastructures. Cement is an important construction material in this kind of development and the demand for this continues to increase especially in areas where roads and buildings are being installed. Therefore, the proposed project of Mabuhay FilCement, Inc. will contribute to the country's infrastructure growth and development while considering the wellness of the surrounding environment of the area.

Specifically, the goal of the project is to address requirements of the construction industry in the Province of Batangas and its surrounding areas in Region 4A. It is set to answer the significant amount of unanswered demand for cement in the various rural areas of the country with relatively smaller developments including local government infrastructure projects. Also, there is scarcity in supply to these rural areas due to constraints in the storage of cement, and the difficulty in the transportation brought by the conditions of the local weather and climate, and the underdeveloped transportation infrastructure.

2.3 Project Component

The cement plant will be developed to be efficient and environment friendly. It will have an estimated maximum production capacity of 3,200,000 Metric Tons of Cement per year.

The energy requirements of the plant management and operation will be sourced from a local utility provider. While the water supply requirement will be coming from the deepwell water source of Calaca Industrial Seaport Zone.

Its raw materials i.e.; clinker, limestone, pozzolanic materials and fly ash will be sourced either locally or abroad and will be temporarily stored within the plant site through silos, steel bins and covered storages. The cement production process will only involve clinker and additive grinding.

The proposed project will be utilizing an area of 19, 505 sq. meter within a Total Land Area of 39,640 sq. m. The equipment, number of units and proposed area are shown on **Table 2.1**:

Table 2.1 Project Component List

Facilities	No. of Unit	Area (in sq. m)	Total Area (sq. m)
Truck scale Room	3	10	30
Truck scale	3	70	210
Clinker Silo	3	800	2,400
Clinker Hopper	1	100	100

Facilities	No. of Unit	Area (in sq. m)	Total Area (sq. m)
Clinker Bin Silo	1	180	180
Fly ash Silo	1	115	115
Cement Mill Workshop	1	1,100	1,100
Material Storage and Mixing Shed	1	4,500	4,500
Feeding System	1	4,500	4,500
Cement Silo	3	400	1,200
Packing House and Loading Area	1	5,210	5,210
Water Pump Room	1	50	50
Air Compressor Room	1	50	50
Cement Mill Power Room	1	50	50
Packing House Power Room	1	160	160
Finished Cement Warehouse	1	800	800
Machine Shop	1	600	600
Substation	1	400	400
Payloader Parking/Motor pool	1	300	300
Water Closet/CR	3	50	150
Parking	1	1100	1100
Guard House	2	10	20
Office	1	650	650
Motorcycle Parking	1	25	25
Cistern Tank	4	7.5	30
WTF	1	50	50
MRF	1	25	25
TOTAL AREA			19, 505

2.4 Project Phases, Key Environmental Aspects, Wastes, Issues, Built-in Measures

2.4.1 Project Development Plan, Process / Technology

Project Phase	Activities/Environmental Aspect	Waste Generation			Build-in Pollution Control Measures
		Type of waste	Estimated rate	Estimated volume (whole project duration)	
3.5.1. Pre-construction/ Pre-Operational Phase	The pre-construction phase involves development and initial project briefing, feasibility studies, project risk assessment, planning, programs and procurement strategy, social preparation works, acquisition of Environmental Compliance Certificate (ECC), and application for other necessary national and local government permits.	Not Applicable (N/A)	N/A	N/A	N/A
3.5.2. Construction/	The construction phase involves buffer/tree planting/clearing activities, civil works, mechanical and electrical installations, construction of cement grinding support facilities, pollution control devices, waste water treatment facility, rain water cistern tank, and installation of air and water pipping.	<ul style="list-style-type: none"> • Solid Wastes (e.g. debris, metals, plastics, wood, vegetation) • Vegetation debris • Domestic Waste Water 	<ul style="list-style-type: none"> - • 20 cum • 90 cum/mo 	<ul style="list-style-type: none"> - • 20 cum • 28,980 cum/yr 	<ul style="list-style-type: none"> ▪ Set-up temporary disposal areas ▪ Establish compost pits ▪ Set up temporary and adequate portable toilet facilities in each work site, provided with proper treatment and disposal of human wastes
3.5.3	The operational phase	• Solid Wastes	• 15 cum/ mo	• 180 cum/ yr	▪ Use 3 R's (reduce,

Operational Phase	involves recruitment and training of personnel, commissioning stage, and actual operation.	<ul style="list-style-type: none"> • Domestic waste water • Generation of Hazardous wastes like used oil and busted bulbs • Air pollution due to emissions of dust • Noise pollution due to operations of equipment 	<ul style="list-style-type: none"> • < 5 cum/day • 	<ul style="list-style-type: none"> • cum/ yr 	reuse and recycle) <ul style="list-style-type: none"> • Establish material recovery facilities at the project site • Provision of adequate septic tank or connection to existing ones • Comply all the provision of R.A. 6969 <ul style="list-style-type: none"> ▪ Installation of additional Cyclone, dust collector and Filter Baghouse, if necessary ▪ Installation of additional mufflers, if necessary
3.5.4. Abandonment Phase	<ul style="list-style-type: none"> • Demolition of structures and disassembling of equipment and machineries • Landform restoration • Erosion Control • Re-vegetation 	<ul style="list-style-type: none"> • Debris • Scraps 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> • N/A 	<ul style="list-style-type: none"> ▪ Equipment and machineries will be sold to interested buyers. ▪ A catch basin at the downslope catchment in combination w/ diversion channels shall be provided

2.5 Indicative Project Cost

The capital investment to establish and operate the grinding and cement packing facility is estimated at PhP 950 million.