EXECUTIVE SUMMARY

INTRODUCTION

Galaxy Construction (Private) Limited aspires to be Pakistan’s greatest builder of all times, with projects offered to an eclectic mix of segments, at choice locations with world class amenities, while ensuring the highest international standards, timely delivery, and lifelong customer satisfaction.

Galaxy Construction (Private) Limited (GCPL) plans to construct a multiuse tower that offers commercial/retail spaces and recreational facilities. The complex name “Bahria Town Icon Tower” (BTIT) is a tall structure comprising of 60 floors. This will be the tallest building in Pakistan with 59 floors of office space and 7 parking levels below ground surface.

The BTIT is a multiuse commercial building project. The building will be constructed on a 1.45 hectares (3.58 acres) area plot located in Clifton, Karachi. The main vehicular access to the proposed site is through Shahra-e-Iraq, Clifton road, 26th street, Khayaban-e-Sadi, Khayaban-e-Ghalib and Khayaban-e-Sahil. The estimated cost of the project is 20 billion Pak Rs and targeted to be completed in 2012.

The Bahria Town Icon Tower (BTIT) Project area falls in Saddar Town of Karachi, near the shrine of Abdullah Shah Ghazi at Clifton. Saddar Town is a densely populated area central part of old Karachi. The proposed site is located at the intersection of UC 10 and UC 11 of Saddar Town.

The main purpose of the project is to provide commercial/retail spaces and recreational spaces tower. It is envisaged that the BTIT will also provide infrastructure for a variety of other uses, with a view to becoming the ultimate in convenience for anyone seeking to work and enjoy their leisure time in a self-contained location for business and finance.

OBJECTIVES OF THE EIA

The specific objectives of this EIA are to:

- Assess the existing environmental and socioeconomic conditions at and around the project site, particularly identify any environmental and social sensitivity areas;
- Identify the likely impacts of the proposed project on the natural and socioeconomic environment, predict and evaluate these quantitatively wherever possible and determine their significance in the light of technical and regulatory concerns, as well as those related to public perceptions;
- Propose appropriate mitigation and monitoring measures that can be incorporated into the design of the proposed activities to minimize any
damaging effects or lasting negative consequences identified by the assessment

- Prepare an EIA report for submittal to the Sindh Environmental Protection Agency (SEPA).

REGULATORY REQUIREMENTS

Pakistan EPA (Review of IEE/EIA) Regulations, 2000 describe the projects for IEE and EIA. The schedule I and ii attached to the IEE-EIA regulations, 2000, lists the projects that require IEE and EIA, respectively. The relevant categories are given below:

Schedule I (IEE)

Urban development and tourism

1. Housing schemes
2. Urban development projects

Schedule II (EIA)

Urban development and tourism

1. Land use studies and urban planes in big cities.
2. Large scale tourism development projects with the total cost of more than fifty million rupees.

Although, the project cannot be clearly classified under any one of the above categories, the project cost more than Rs. 50 million, therefore, the project is categorized in Schedule II and an EIA is prepared.

ENVIRONMENTAL CONSIDERATIONS IN DESIGN

Environmental performance of the BTIT will be improved through the combination of the following strategies:

- adoption of measures for mitigating energy consumption;
- use of construction materials from sustainable sources;
- minimization of waste generation;
- maximization of opportunities for passive ventilation/cooling;
- maximization of the use of passive energy systems, by adopting building layouts that optimize exposure to wind effects;
- specification of appropriate material performances; and
- adoption of energy efficient mechanical systems
ENVIRONMENTAL SETTING

The district of Karachi South lies between the low land of Lyari river and Malir River. The deltaic plain is composed of alluvium and marine deposits. The Gizri creek is the marshy and swampy area. The height of the city limits does not generally exceed 100 ft above the mean sea level.

The area's climate is broadly classed as hot and arid. The meteorological station nearest to the project area is at Karachi airport. The yearly (1992-2001) maximum average temperature in the area remains approximately 32.3°C. Hottest months of the year are May, June and July; coldest, are December, January and February.

Average annual rainfall in the district is about 166mm. The rain fall is scanty and is un-predictable. The rainy season stretches between July and August. July and August are among the wettest months of the year with a precipitation of 66.4mm and 44.8mm respectively.

Since the project site is located in an urban environment, the floral species are less in number and are mostly anthropogenic. The plant species dominating the project area include Prosopis juliflora, Ficus religiosa and Salsola imbricate.

A limited number of birds, mammals and reptiles were recorded from the project site during the field visit for the EIA study. None of the key species may be regarded as key species or species of interest.

ENVIRONMENTAL IMPACTS

Potential impacts from the proposed project activities were identified thorough review of the project activities, study of surrounding environment, review of literature, review of previous similar studies and expert judgment.

Construction Related Impacts

Major construction phase (up-gradation work) impacts are listed below:

- Generation of dust due to excavation, building material mixing and construction material transportation activities
- Dumping of construction waste and Construction Labor
- Noise and vibration due to construction and erection of electrical and mechanical equipment
- Increase in traffic of the area due to construction and erection material transportation
- Domestic solid waste generation from residence of construction and
erection crew

- Light
- Procurement concerns

Land Use and Soils

The potential issues include the change in the land uses and soil erosion due to the construction of the proposed tower.

Dust Emission

Dust emission from construction site is a concern particularly if the site is near residential areas. Particulate matter emitted during construction activities can result in deterioration of ambient air quality in the vicinity of the source, and be a nuisance to the near by communities and workers.

Construction Noise

Depending on the construction equipment used and its distance from the receptors, the commuters travelling on the Abdullah Shah Ghazi Road and the nearby commercial and residential areas may be exposed to intermittent and variable noise levels.

Soil Contamination

Spills of chemicals and fuel during handling, transportation and storage may result in contamination of soil at the construction site. A significant impact will be interpreted if oil and grease is present in the run-off and result in soil contamination.

Solid Waste Generation

The construction phase of the project is expected to generate wastes including; packing waste; scrap, excess construction materials and debris, domestic wastes from construction camp, empty containers and drums, used lubricating oils and chemicals etc.

Operational Phase impacts

The possible environmental issues that could arise in future by the operations of “Bahria Town Icon Tower” (BTIT) are described in this portion. Once it is functional, the facility itself will not be any source of significant environmental issues. It will generate the followings:

1) Traffic increase which will increase the level of air and noise pollution in the area.
2) Increased tourism in the area which will lead the development of some externalities like shops and other structural development alongside the access road in the area.
3) Energy demand
4) Fire hazard in the area
5) Night-time lightening in the area would cause nuisance in the area.
6) Demand for Municipal services which will be due to solid and liquid waste generation, portable water supply, and food services.

The potential environmental aspects and their impacts are discussed below.

Traffic
There will be an increase in the traffic during project construction and post development phase. This can result in unnecessary traffic jams and chaos for the commuters travelling on the adjacent Abdullah Shah Ghazi Road.

Waste Water Generation
The building operations will generate wastewater in the form of mostly domestic wastewater. Minor quantities of hazardous wastewater will also be produced during the maintenance activities in the building (such as oily water etc.). The wastewater can be a potential source of pollution to surface and groundwater resources of the area.

Solid Waste Generation
The solid waste generated during the post developmental phase of proposed project can pose a health hazard; pollute soil, surface and ground water if not managed properly.

Socio-economic Impacts
The proposed development will provide additional tourist and recreational facilities in the city of Karachi. A considerable area of the GFA will be occupied by Food courts, retail and swimming pool etc. By providing such additional facilities, the BTIT will potentially promote the development of recreation.

Reflection and Shadow
There are currently other high rise buildings in the area as well. This being the tallest can have an impact of shadow on the nearby areas. The maximum impact can be to the neighboring park Bagh-e-Ibn-e-Qasim which would also not be very significant as it will be for a short duration of time.

Seismicity
The area presents a moderate to high hazard potential for earthquake activity. Under this zoning the proposed project site lies on the border of moderate to high hazard zone with minor to moderate damaging affect.

Fire Hazard
Recently there have been fire incidents in Karachi which have caused serious losses. Unfortunately there are no proper arrangements in the city to tackle with such incidents in high-rise buildings.
CONCLUSION

Baseline environmental and socioeconomic information was collected from a variety of sources, including reports of previous studies, published literature and field surveys. The information collected was used to compose profiles of the natural, socioeconomic and cultural environments likely to be affected by the project.

However, the scale and nature of the project requires that potential environmental effects due the proposed project are evaluated, mitigation measures required to minimize or obviate these impacts be assessed, implemented and monitored. Any residual impacts may be assessed for their significance. All these requirements have been addressed in this EIA.

Key environmental impacts of the proposed project can be the air emission, dust generation, noise, lighting system, odor, solid waste and wastewater. The detail environmental mitigation measures, management and monitoring plan are given through this report in order to ensure the compliance with the legislative requirements and minimize the impacts on the environment.

The BTIT management will have to strictly follow environmental guidelines through this EIA, safety procedures and employ vigilant security during all phases of the project life cycle.

It is therefore concluded that adverse impacts arising from the project can be mitigated and managed through the mitigation measures and EMP and that the residual impacts will be of minor to moderate significance. Overall the project will have positive economic impacts.