

Projects offered by Karachi Port Trust

PORT BRIDGE

To provide connectivity of Pakistan Deep Water Container Port with main arteries of road network the Karachi Harbour Crossing Bridge project was envisaged having a length of 13.5 km and comprise of cable stay bridge across the channel, with 470 m span and 65 m air draft to cater for shipping traffic under it. Two causeways will lead from the bridge; the shorter one connects the Manora-Sandspit strip while the one veering to the right connects the Cargo Village & Industrial Park, which in turn shall have an extended linkage to Lyari Expressway and Northern By-pass.

The Project was awarded for the Design Engineering Services including feasibility study and hinterland link between Keamari, Sandspit and Cargo Village to the consortium of Consultants of international repute comprising M/s Leonhardt Andra and Partner of Germany, M/s Inros Lackner of Germany with M/s AA Associates and M/s Indus Associated Consultants (Pvt) Ltd as the local partners of the above.

The cost estimate for the bridges is based on the recent historic cost record rates per square meter and the costs of the roadwork have been computed as a rate per meter of roadwork. To these costs, 12 % contingencies are foreseen for additional costs. No costs for land acquisition have been foreseen, as it estimated that the land needed all belongs to KPT. The cost estimation varies between 417 million USD and 519 million USD. The capital required for this project is either considered as loan, company internal or obtained by bankers or financial institutes. The sole revenue component of the project is road tolls levied. The construction time is estimated to be five years from date of start. In the following tables the financial and the economical key figures for the five options are listed. The financial analysis shows that the Option 5 evolves as the most economic investment compared to the other options. Accumulated cash flow will turn into positive results from year. 2030 onwards, and FIRR is the highest among all options.

Alignment	Investment amount (USD million)	Pre-financing FIRR	FIRR after Financing	NPV (USD million)	First positive operating income in	First Positive Cash Flow in
Option 5	416.6	8.78 %	2.96 %	-291.3	2018	2030

The economic analysis reveals that all alignment options achieve a cost-benefit ratio of more than 1, i.e. there is no risk of sunken economic cost when investing in KHC. Option 5 cost benefit ratios count for slightly above 1 : 8.

Alignment	Investment amount (USD million of 2007)	EIRR Interest rate	Cost - Benefit Ratio	Net Present Value i= 7.5% (USD million of 2007)	Interest rate FIRR= Break even	NPV at FIRR interest rate = Break even (USD million)
Option 5	416.6	14.68%	1 : 8.2	435.5	15.44%	11.5

The sensitivity analysis of the recommended option 5 underlines the validity of the economic appraisal results. In the next table, it can be seen that EIRR and NPV of the investment cost are comparatively robust against impacts gained by worsening conditions.

Investment Cost 20% higher than expected		Traffic 20% lower than expected		Traffic 20 % higher than expected	
EIRR	NPV, i=7.5 % (USD million)	EIRR	NPV, i=7.5 % (USD million)	EIRR	NPV, i=7.5 % (USD million)
12.95 %	371.2	12.58 %	284.1	16.54 %	587.0

CARGO VILLAGE / INDUSTRIAL PARK

The Karachi Port Administration, being well aware of the need for expansion and modernization of its facilities especially to keep up with other regional ports, had carried out a Feasibility Study through an American International Consultant, to examine cargo handling / storage / dispatch constraints, with a view to setup an off-dock facility in the shape of Cargo Village. The American Consultants in their conclusion recommended developing Cargo Village and Industrial Park in phases.

The Cargo Village and Industrial Park will be located in the Northern part of the Western Backwaters, west of Karachi Fish harbour and south of the Macchar and Mohammadi Colony. The Cargo Village and Industrial Park shall utilize 534 hectares which means that more than 20 percent of the total area of the Western Backwaters shall be reclaimed. The western Backwaters of Karachi harbour cover in total an area of approximately 2,590 hectare or 6,400 acres. The location of Cargo Village offers good approach to Lyari Expressway, ICI- Bridge and shall be connected to the future Karachi Harbour Crossing from Karachi Deep Water Port.

Salient Features of the scheme:

- Completion time for the entire scheme is about 60 months.
- Development of approximately 320 hectares (790 acres) of land within the first phase of development. Provision for additional 214 hectares (528 acres) of land for future development; this area may initially be used for the storage of insufficient subsoil. Constructing a “multipurpose berth” of 360 m length to the southern tip of the amended / modified defined perimeter.
- Two access roads connecting the Cargo Village with Lyari Expressway / Maripur Road in the north and ICI-Bridge in the east.
- Rail access corridors. Provision for an Intermodal Yard to handle block trains up to 800 m. Provision for Refrigerated Cargo Facilities.

- Provision for areas for Inland Container Depot (ICD). Providing the area for a coal terminal, capable of handling 5 million ton per annum/year. This includes two respective berths with a total length of 600 m, to be designed and constructed by the private sector.
- Providing expansion possibilities for the Industrial Park on reclaimed land. Providing expansion possibilities for the Industrial Park or Technology Park within the Mohammadi and Macchar Colony Area. Providing the required area for a Coal Power Plant in the range of 500 to 1000 Mega Watt.

Implementation Phase/ Packages

Package 1 – All Marine Works including Dredging, Seawall, Revetment, Reclamation & Stabilization, Quay Wall, Wharf piling, etc **(Tender Documents available)**. **Estimated cost : Rs. 38,000 (M)**

Package 2 - Connection to ICI Bridge, Northern Bypass & Lyari Expressway, Approaches and Railway Linkage. **(Details to be worked out)** **Estimated cost : Rs. 2,000 (M)**

Package 3 - Internal Roads & Cargo Village Approaches, Footpath – Walkways, Entry / Exit gate house, utility Services, Fencing etc. **(Concept Design completed)** **Estimated cost : Rs. 1,000 (M)**.

Package 4 - Common users Facilities including all Amenties, Security, Masque, Administration & Commercial Buildings etc. **(Concept & Preliminary Design available)** **Estimated cost : Rs. 100 (M)**.

KPT MARITIME ENCLAVE- 77

The project reflects the aspiration of KPT, inline with suggestions of World Bank to undertake effective and commercially sound real estate projects to enhance the financial returns of KPT together with the idea of introducing international standard buildings in Pakistan.

To achieve a high quality international level project KPT through international bidding selected world renowned architect M/s Aedas of UK. M/s Aedas is supported in the design by M/s Mott McDonald of UK. Project Marketing is by M/s. Cushman & Wakefield. Maritime Enclave-77 development is planned to comprise of a 78 storey and shall be a landmark project for the City of Karachi. The iconic enclave will also encompass four low level residential towers, a convention centre and a shopping mall. Its construction will become a source for the City of Karachi to gain automatic recognition the world over. The project is designed to serve the maritime community and will accommodate port oriented business in particular.

A. Salient features of the KPT Maritime Enclave – 77 are as follows:

Estimated cost	:	USD 500 million
Plot size	:	12.8 acres
Covered area	:	3,9000,000 sq. ft
Height of KPT-77	:	1,083 ft
5 Star Hotel (250 Bed)	:	390,000 sq. ft (top 5 floors)
Corporate offices	:	1,700,000 sq. ft (48 floors)
Residential area	:	690,000 sq. ft
Retail area	:	155,000 sq. ft
Convention Centre	:	120,000 sq. ft
Car Parking	:	2,500 nos. (two level basement)

Time for completion of construction services is estimated to be 48 months

B. Studies Conducted

- Site Selection
- Soil Investigation
- Market Analysis
- Traffic Studies
- Environment Study
- Preliminary Design Details
- Tender Document Stage-1
- Prequalification of Contractor Report.

C. Status / progress

International contractors with capabilities of high-rise buildings were invited for prequalification. Two contractors namely M/s Arabtec and M/s China Estate Construction were pre-qualified for the first stage bidding. Tenders for the first stage were received on 15 December 2007 and discharged.