CASTING BASIN COSTA AZUL, BAJA CALIFORNIA, MX

L. SHEN - LEAD STRUCTURAL ENGINEER
R. BITTNER – TECHNICAL ADVISOR

CLIENT: COSTAIN‐CHINA HARBOUR

A joint venture between Costain and China Harbour was retained by Sempra LNG’s Energia Costa Azul to design and construct the caisson breakwater for the liquefied natural gas (LNG) receipt terminal at costa Azul in Baja California, Mexico. The breakwater will serve to protect the import terminals LNG off‐loading jetty, and will be built using precast concrete caissons. These will be constructed in a casting basin located at Ensenada Port from where they were floated‐in to the LNG terminal at Costa Azul.

Services:
- Detailed design of the casting basin facility. 105 m wide by 155 m long and 12 m deep basin. The Casin basin is situated next to existing facilities at the Port of Ensenada, and extends out through the surf zone. Jetties built from armor rock project out from shore to form the casting basin and a removable gate structure that can be floated in and out.
- During construction of the caissons, the casting basin remains dry, and when flooded under control conditions, the caissons floated out to their final destination at the LNG facility approximately 14 miles north of Ensenda.

Services Performed:
- Feasibility Studies
- Oceanographic Studies
- Detailed Design
- Structural Design
- Geotechnical Analyses & Design
- Hydraulic & Dewatering Design
- Coastal Engineering