2009 OCEA Award
(Outstanding Civil Engineering Achievement Award)

◆Group Ⅱ

This award is presented to milestone projects that made an outstanding contribution to the development of civil engineering technology.

Nishi-Osaka Extension Line(Hanshin Namba Line) Construction Project
- Creating A New Urban Railway Network in Kinki Region -

Nishi-Osaka Rapid Railway Co., Ltd. / Hanshin Electric Railway Co., Ltd.

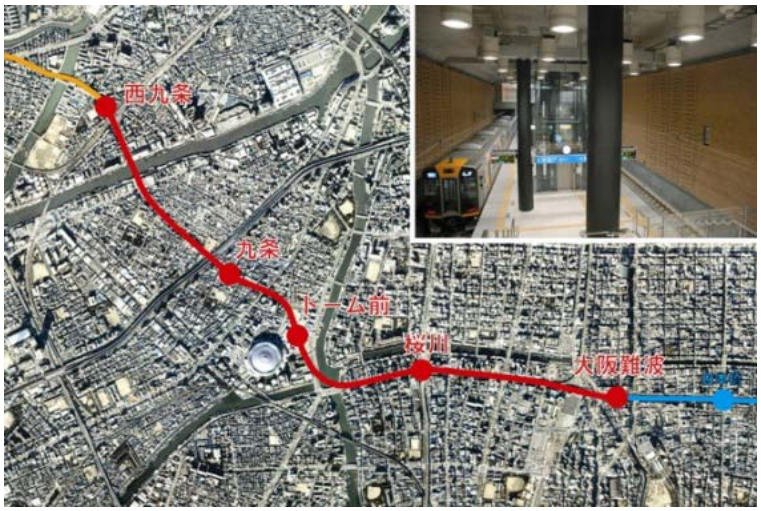
Summary

Nishi-Osaka Extension Line Construction Project is aimed to connect Nishi-Kujo St. to Osaka-Namba St., for creating a new urban railway network in Kinki Region.

This project enables passengers to go Kobe from Nara without changing a train, and it means municipal performance in the east-west direction is strongly strengthened centering on Osaka.

On construction, current technology is adopted, such as constructing the bridge on a salvage barge throughout from framing step into building step, or applying rectangle shield tunneling method. And also heightened soundproof wall or open ceiling space in the underground station is applied from the aspect of environment or landscape.

As this, this project is prize worthy in terms of contribution for society, developing civil engineering technology, and attempt for integrated society.

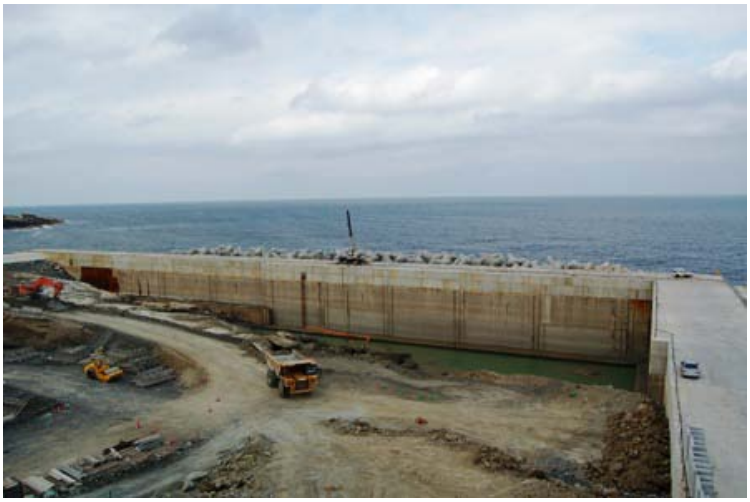


Seawall with Artificial Reef of Shimane Nuclear Power Plant.

The Chugoku Electric Power Co.,inc.

Summary

Shimane Nuclear Power Plant faces to the Japan sea and is attacked by severe waves. A new type of seawall with artificial reef, which has the high stability against wave action and high performance of water proof and requires no breakwater in front, was developed and installed in this power plant. After construction of this seawall, the rear side of that was dried up and completed construction of intake and outlet structures in the waterless environment. Significant cost reduction for construction and shortening work periods were achieved by this breakthrough. This project may become excellent model for development of nuclear power plant in nearshore area.



Nagoya Port Next-Generation High Standard Container Terminal
- The Second Berth Construction Work at the Tobishima Pier South Side Container Terminal -

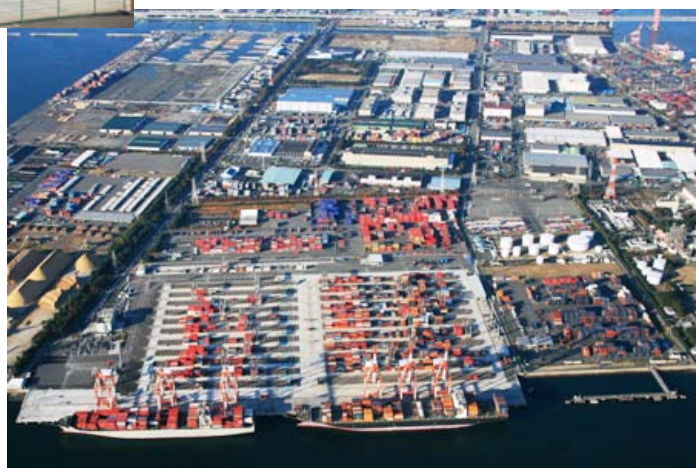
Nagoya Port Office, Chubu Regional Development Bureau/ Tobishima Container Berth Co.,Ltd.

Summary

The Tobishima Pier South Side Container Terminal in Nagoya port is the first automated terminal in Japan to be developed by the public and the private sectors working closely together. The goal is to realize low-priced and efficient terminal operation.

Remarkable mentions in the technical matter in this terminal are as follows;

- First terminal in Japan to introduce the Jacket Structure as the structure of a quake-resistant high standard 16m deep quay wall
- First terminal in Japan to introduce an automated loading system consisting of Rubber Tired Gantry Cranes(RTG), which are remotely operated, and Automated Guided Vehicles(AGV)



Yamate-Tunnel between the 3rd Shibuya and the 4th Shinjuku line
-A Construction of the Environmentally Conscious Urban Expressway Tunnel-

Metropolitan Expressway Co.Ltd.

Summary

The Yamate-Tunnel between Shibuya and Shinjuku is the west part of the Tokyo Metropolitan expressway Central Circular Route, and connects two of the most populous cities in the metropolitan area. The tunnel is built to improve the traffic flow in Tokyo area drastically and expected to yield the environmental benefit.

Through the construction, various kinds of innovative techniques, such as the Shield Tunnel Expansion Methods Without Open-Cut and the U-turn excavation of the TBMs, were developed. And in the planning and the designing of the Ohashi-Junction, adopted was the community participated approach that had been implemented by the integration of the Tokyo metropolitan government, residents of Ohashi and Metropolitan Expressway Co.Ltd.

Those advanced ways developed in this project is widely applicable, and thus, will contribute to the further development in urban area.