

ON-LAND CIVIL ENGINEERING

Operations

With a century-long history as a highly-reputed, reliable contractor in marine construction and engineering, TOA also has accumulated experience and expertise in on-land civil engineering through the completion of various projects. Among the projects are roads, bridges, railways, tunnels, water dams, river dikes and water gates, water supply and drainage systems, sewage

collection and treatment facilities, land development, and environmental mitigation and rehabilitation programs. In each and every project, TOA has devoted all of its capabilities to faithfully execute its duties and responsibilities as a contractor, enhancing TOA's reputation as one of the most trustworthy contractors in Japan.

Paiton III Power Plant (Indonesia)

The construction of a supercritical pressure coal-fired power generation plant was completed in April 2012 in Paiton, which is situated in East Java Province in the Republic of Indonesia, creating the largest coal-fired power plant in the country. Construction of

the power plant was ordered by PT Paiton Energy, a company that was established as an IPP. Toa Corporation was in charge of the comprehensive civil engineering and construction work for this project.



2nd Magsaysay Bridge and Butuan City Bypass Road (Philippines)

In the Republic of the Philippines, the road network bears 90% of the passenger traffic and 50% of the cargo transportation, but many roads in various areas are unpaved or too narrow to keep up with the growing volume of traffic. Funded by an aid-loan from Japan's ODA program, the Government planned a bypass road in Butuan City to improve traffic conditions and bolster the economy in the northeastern region of Mindanao

Island. In this connection, the Philippines awarded a contract to a joint venture of TOA and Nippon Steel Corporation to build the 2nd Magsaysay Bridge, a steel cable-stayed bridge with a total length of 882m, a two-lane bypass road with a total length of 8.1km, and two link roads with a length of 1.33km and 2.9km respectively to connect the bypass road with the existing main road.



Rehabilitation of Sewage Drainage System (Tokyo, Japan)

The sewerage network in downtown Tokyo, was constructed nearly one century ago. The Tokyo Metropolitan Government started a project to rehabilitate the sewage drainage network through reconstruction and refurbishment. TOA was awarded a contract to reconstruct the drainage system for surface runoff in Chiyoda ward. Against the construction site of

narrow streets with heavy traffic and a dense concentration of buildings, TOA's highly-qualified engineers dealt with various difficulties and utilized the shield tunnel method to complete the drainage system, which measured 2,058m in length with an inner diameter of 2,200mm, on schedule without any accidents.



Newly Completed Project

Construction of Bridge Pier on National Route 45 across Kesennuma Bay in Matsuzaki District

The work has been completed in the city of Kesennuma in the Matsuzaki District of Miyagi Prefecture.

As a leading project for recovery from the Great East Japan Earthquake. Along the Sanriku Coast in the Tohoku region, repair work is being carried out at a rapid pace on the Sanriku Coast Expressway (Reconstruction Road), a 359 km stretch of a road specifically for use by automobiles that connects the three prefectures of Miyagi, Iwate, and Aomori.

Plans call for the construction of a bridge across Kesennuma Bay, which forms the main part of the Kesennuma road section of the Sanriku Coast Expressway. The bridge will have a length of 1,344 meters and cross over the Okawa River in the city of Kesennuma in Miyagi Prefecture and Kesennuma Bay. Upon completion, the span of the bridge, which is approximately half the length of the bridge (680 meters), will be the largest for a cable-stayed bridge in the Tohoku region. The JV of which the Company is the main



partner for this construction work undertook the building of the piers for this bridge across Kesennuma Bay. The completion of this bridge across

Kesennuma Bay will shorten the routes traveled, and it is also expected to contribute greatly to tourism in the Sanriku region.

- **Client** Tohoku Regional Development Bureau of the Ministry of Land, Infrastructure, Transport and Tourism
- **Construction period** April 2015 to December 2018
- **Project outline** One abutment; seven piers
- **Site of construction** Kesennuma City, Miyagi Prefecture

Ground Formation Work for Fujitrans Corporation Logistics Center

Ground formation work ordered by Fujitrans Corporation for the Fujitrans Corporation Logistics Center has been completed in the village of Tobishima in Ama-gun, Aichi Prefecture.

The area where the work was carried out is located at Nagoya Port, which handles the largest volume of cargo in Japan. Improvements are being carried out to make the Logistics Center a major distribution base. The ground formation work involved the creation of a vast site of land of approximately 200,000 m² that was raised about one meter higher than the surroundings as a countermeasure against tsunamis. At present, a portion of the site has started to be put to use as a container yard, with plans calling for the construction of a new distribution warehouse to integrate distribution functions.



- **Client** Fujitrans Corporation
- **Construction period** April 2017 to March 2019
- **Project outline** Ground formation work on an approximately 200,000 m² business site for use as Fujitrans Corporation Logistics Center
[Construction work details] Pavement demolition: L-shaped retaining wall: Formation earthwork: Paving:
- **Site of construction** Tobishima, Ama-gun, Aichi Prefecture