



INFRASTRUCTURE

MARINA COASTAL EXPRESSWAY

The Marina Coastal Expressway is a dual 5-lane, 5 km long expressway joining the Kallang-Paya Lebar Expressway and the East Coast Parkway in the east to the Ayer Rajah Expressway in the west.

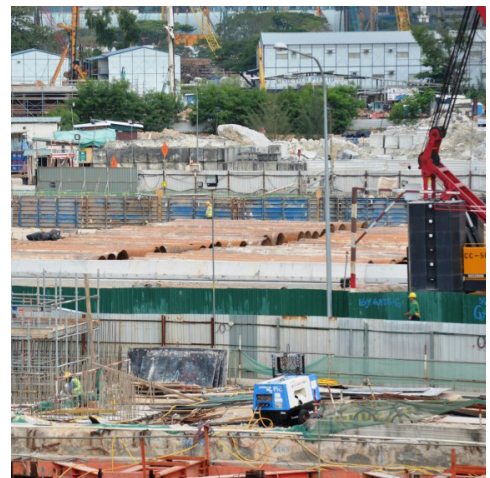
Contract 481 at Marina Wharf is a 0.95km stretch connecting to the Ayer Rajah Expressway. It comprises of the design and construction of 490m of dual carriageway at-grade piled road system, 460m of dual carriageway viaduct structure linking to South Quay Viaduct and slip road connections to Maxwell Road and from Maxwell Road to Sheares Avenue. For the construction of the project, there was 8.9 hectares of land reclamation at Marina Wharf and the construction of trunk sewers.

CLIENT: Land Transport Authority

PROJECT VALUE: S\$305M

ECAS' ROLE: Qualified Person Supervision

COMPLETION DATE: 2013



ALEXANDRA ARCH



Alexandra Arch is an 80 meter pedestrian bridge linking Hilltop Walk and Forest Walk. It is designed as an open leaf across the road. The arch was awarded with the Singapore Structural Steel Society award for Distinguished use of Structural Steel for its Creativity, Value, and Innovation.

CLIENT: Urban Redevelopment Authority

PROJECT VALUE: S\$11.8M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2008

JURONG EAST STREET 21



The project consists of the widening of Jurong East Street 21 and a new road between Boon Lay Way and Jurong Gateway Road including the design and construction of a pedestrian overhead bridge with pre-cast prestressed girders, reinforced concrete pier, pier cap, pilecap and bored micropiles, and a structural steel roof. The access to the POB is by staircases and lifts on both sides of the road. The project also involved numerous reinforced concrete box culverts (RCBC) constructed below the new road extension to form part of the carriageway drainage system. The design of the covered linkways and bus shelters was also included.

CLIENT: Chan & Chan Engineering Pte Ltd

PROJECT VALUE: S\$12M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2015

INFRASTRUCTURE WORKS AT LORONG HALUS



The proposed 45.4m road is a dual 4-lane, approximately 800m long which will have an intersection with existing Tampines Road with proper traffic arrangements. The road will cross the existing Sungei Serangoon Canal, which is to be provided with a 3-cell box culvert crossing with maintenance access.

The project also includes Trunk Sewers of 1800mm diameter with depth varying from 12m to 16m, minor sewers of 400mm diameter with depth of 10.5m, roadside drains and box culverts for spans varying from 1.1m to 2.5m and depths up to 2.7m, and a 3-cell box culvert, crossing which have been design based on LTA loadings requirements.

CLIENT: Jurong Town Corporation

PROJECT VALUE: S\$20.98M

ECAS' ROLE: Consulting Services, Detailed Design, and QP Supervision

COMPLETION DATE: 2016



INFRASTRUCTURE

PAN ISLAND EXPRESSWAY AIRPORT BOULEVARD (BRIDGE)

Contract ER521A comprised of the widening of the existing PIE-Airport Boulevard slip road from 2-lane to 3-lane, including the design and construction of a new vehicular bridge over the existing Changi Airport Diversion canal with approach slabs, utility bridge for PUB water pipes, new widen RC canal, drain and ancillary works including services diversion required for the completion of the contract.

The 3-span vehicular bridge has a total length of approx. 70m, comprising of precast prestressed T-beams with composite deck slab resting on RC Capping Beam and supported by rows of bored piles. Bridge deck is cast in-situ: prestressed precast beams with composite deck slab monolithically connected to cast-in situ crossbeam at intermediate piers and abutments location. The proposed bridge consists of carriageway, footpath and flower trough. The proposed canal is cast in-situ reinforced concrete open u-drain and proposed drain is reinforced concrete U-drain (RCU), box-drains, culvert (RCBC) and sump (RCS).

CLIENT: Land Transport Authority

PROJECT VALUE: S\$18M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2019



FOREST WALK



The elevated walkway of the Forest Walk is an 800 meter long walkway at an altitude of 3 meters to 18 meters above the park. The structure is built from steel and create a peaceful walk through the park.

CLIENT: Urban Redevelopment Authority

PROJECT VALUE: S\$11.8M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2008

OVERHEAD BRIDGE FOR WEST COAST CC



This is a POB which span across West Coast road from the entrance of the West Coast Community Centre to the West Coast Plaza.

The two main girders 25.35m and 14m span for the POB are made of precast pre-stressed element with simply supported span supported by RC piers at both ends. There are bearing supports at the end of all girders. Pre-stressing shall be pre-tensioned and there are not external tendons. There is another 8.2m span main girder made of post tensioned element with a cantilever support by a RC pier.

CLIENT: People's Association

PROJECT VALUE: S\$2M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2017

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CLIENT: Land Transport Authority

PROJECT VALUE: S\$305M

ECAS' ROLE: Qualified Person Supervision

COMPLETION DATE: 2013