



RESIDENTIAL

JURONG EAST COURT

Public Housing Development comprising of 2 blocks of 16-storey apartment buildings and 2 blocks of 12-storey apartment buildings making a total of 867 units. The units are of 1 to 3 rooms and have access to lifts at every storey.

The development scheme is composed of a R.C. frame structure, which includes the RC precast beams and RC precast walls, and together with cast in situ columns, lift walls and storey shelter walls. The structure is supported by the reinforced concrete bored piles.

CLIENT: Housing and Development Board

PROJECT VALUE: S\$82.8M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2014



GREENWICH V



Greenwich V is an integrated commercial and residential development. It comprises of 7 blocks of 5-storey residential condominium with basement car parks, swimming pool and communal facilities together with 2-storey commercial buildings with shops/supermarkets.

The structural system is the conventional RC beam and slab system for the superstructure and flat slab system for the basement. The structure is founded on precast RC driven/jack-in piles.

CLIENT: Far East Square Pte Ltd

PROJECT VALUE: S\$80M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2013

CITYLIGHTS CONDOMINIUM



The project involved one block of 41-storey and three blocks of 42-storey condominium housing development and consists of basement, multi storey car parks, swimming pool, communal facilities and retention conservation houses.

The framing of the superstructure is a combination of RC flat slab with perimeter beams and RC beam/ slab system. The structure is founded on cast-in-situ reinforced concrete bored piles.

CLIENT: Woodsvale Land Pte Ltd

PROJECT VALUE: S\$95M

ECAS' ROLE: Accredited Checking

COMPLETION DATE: 2007

THE MEZZO



The Mezzo is a 28-storey commercial and residential development comprising of 6-storey commercial and carpark podium block and 28-storey residential tower block.

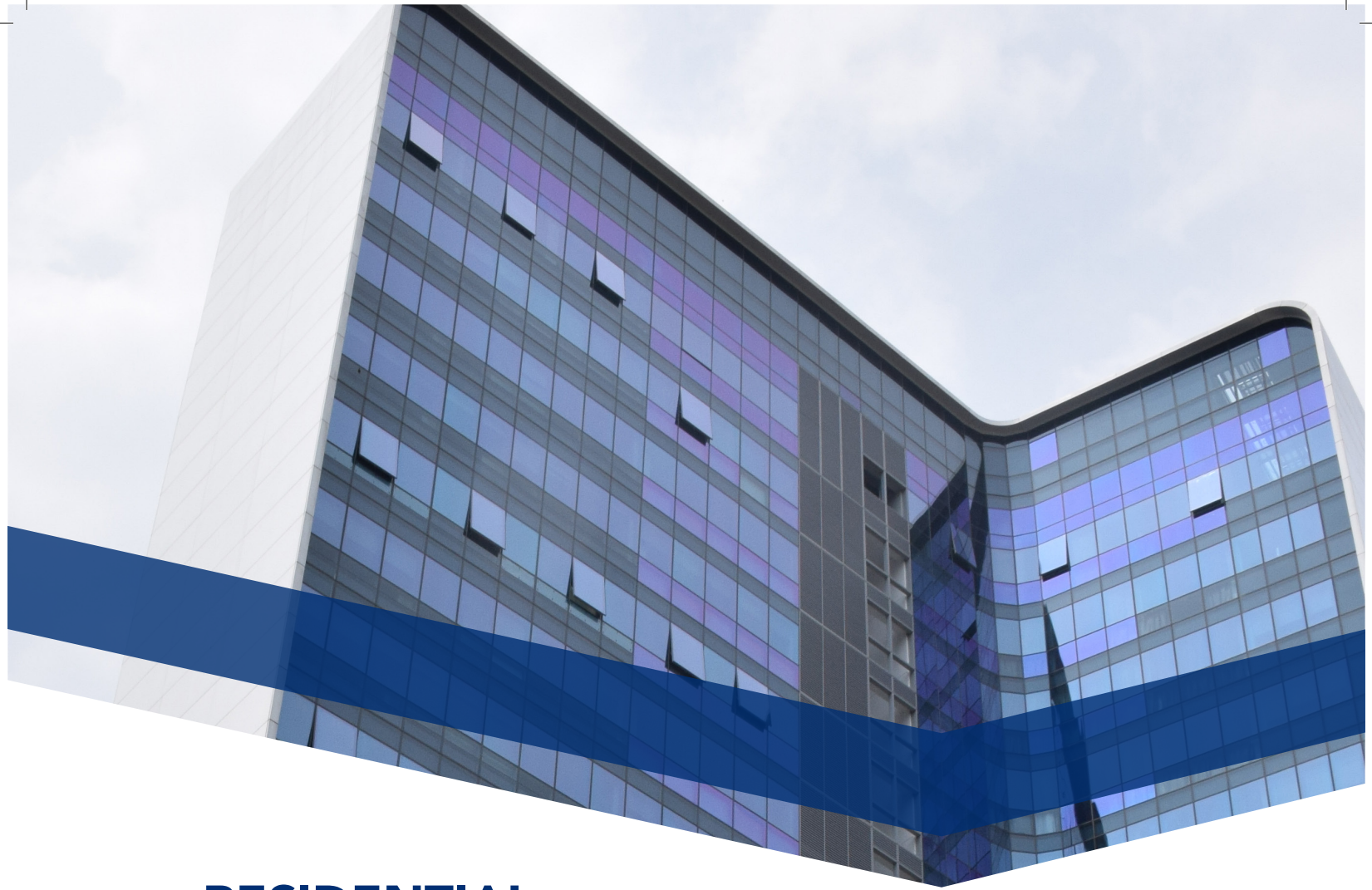
The structural framing for the podium consists of mainly RC slab and beam system, and the framing for the tower consists of mainly flat slab system. The transfer floor is at the 7th storey to meet the architectural requirements. The structure is founded on cast-in-situ reinforced concrete bored piles.

CLIENT: SB (Ruby) Development Pte Ltd

PROJECT VALUE: S\$35M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2011



RESIDENTIAL

ALBA CONDOMINIUM

Alba is a luxurious condominium located in Carinhill Rise. The building is a Y-shaped, 18-storey residential development comprising of 50 units with basement car parks, swimming pool and recreational facilities.

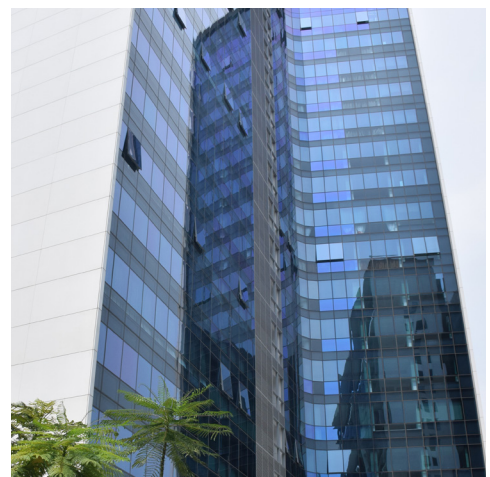
The framing of the superstructure for the development consists mainly of RC slab and beam system, and the framing for the basement consists mainly flat slab system. The transfer floor is at the 1st storey and 2nd storey to meet the architectural requirements. The structure is founded on cast-in-situ reinforced concrete bored piles.

CLIENT: Far East Organization Centre Pte Ltd

PROJECT VALUE: S\$60M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2015



LUMOS CONDOMINIUM



Lumos is a 35-storey residential apartment with basement car parks, swimming pool and recreational facilities.

The structural framing for the development consists of RC beam and slab system for superstructure of the podium and flat slab system for basement slab. Flat Slab with perimeter beams were adopted for typical floor of the tower block. The structure is founded on cast-in-situ reinforced concrete bored piles.

CLIENT: Build Home Pte Ltd.

PROJECT VALUE: S\$66.7M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2011

HILLTOPS CONDOMINIUM



The Hilltops condominium project consisted of 2 blocks of 24-storey residential buildings with basement car parks, swimming pool and communal facilities.

The framing of the superstructure for the development consists mainly of RC flat slab system with RC Columns. The structure is founded on cast-in-situ reinforced concrete bored piles.

CLIENT: SC Global Developments

PROJECT VALUE: S\$158M

ECAS' ROLE: Accredited Checking

COMPLETION DATE: 2011

TREVISTA CONDOMINIUM



The Trevista condominium is a 39-storey residential development with two basement car parks, swimming pool and communal facilities.

The framing of the superstructure for the development consists mainly of RC flat slab system, and the basement framing consist of flat slab system. The transfer structure is at the 1st storey to meet the architectural requirements. The structure is founded on cast-in-situ reinforced concrete bored piles for the main residential towers whereas the podium is supported on spun piles.

CLIENT: Choice Homes Gamma Pte Ltd

PROJECT VALUE: S\$150M

ECAS' ROLE: Accredited Checking

COMPLETION DATE: 2013



RESIDENTIAL

SEASTRAND CONDOMINIUM

Erection of 9 blocks of 11 or 12-storey residential building (total of 473 units) in Pasir Ris.

Carparks, substation at partial of 1st & 2nd floor: Cast in-situ reinforced concrete beams and slab system supported by rows of reinforced concrete columns. One way slab are proposed at middle portion of the drive way area to provide space for M&E requirement.

Environmental Deck at 3rd floor including landscape & swimming pool and deck: Cast in-situ reinforced concrete beams and slab system. Transfer beams are provided to transfer the loading from the load bearing/shear wall above to the columns below. Appropriate waterproofing system is provided to the architect's specifications. Floor slab of third story of the apartment blocks are raised up from the transfer beam level to provide space for M&E requirements, i.e. floor drains & Sunken tubs.

Apartment Blocks Partial of 1st to 3rd floor, 4th to Roof: Cast in situ reinforced concrete flat plate with reinforced concrete perimeter edge beams supported by rows of reinforced concrete walls and columns. Generally, the slab soffit is flat throughout for ease of construction with limited beam at the M&E opening areas.

CLIENT: F.E. Lakeside Pte Ltd

PROJECT VALUE: S\$63M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2014

ECAS



VIDA CONDOMINIUM



20-storey residential apartment with a total of 137 units. Includes a 5-storey basement carpark, swimming pool and recreational facilities.

The structural system for 20-storey residential flat is partially flat slab system, from 1st to roof storey with peripheral beam as well as the conventional beam/slab system at multi-storey carpark and landscape area. The basement system comprised of flat slab system together with pilecap casted at the same level. The structure is founded on concrete bored-piles.

CLIENT: Wan-Li Development Pte Ltd

PROJECT VALUE: S\$30M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2009

ALBA CONDOMINIUM



Alba is a luxurious condominium located in Carinhill Rise. The building is a Y-shaped, 18-storey residential development comprising of 50 units with basement car parks, swimming pool and recreational facilities.

The framing of the superstructure for the development consists mainly of RC slab and beam system, and the framing for the basement consists mainly flat slab system. The transfer floor is at the 1st storey and 2nd storey to meet the architectural requirements. The structure is founded on cast-in-situ reinforced concrete bored piles.

CLIENT: Far East Organization Centre Pte Ltd

PROJECT VALUE: S\$60M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2015

GREENWICH V



Greenwich V is an integrated commercial and residential development. It comprises of 7 blocks of 5-storey residential condominium with basement carparks, swimming pool and communal facilities together with 2-storey commercial buildings with shops/supermarkets.

The structural system is the conventional RC beam and slab system for the superstructure and flat slab system for the basement. The structure is founded on precast RC driven/jack-in piles.

CLIENT: Far East Square Pte Ltd

PROJECT VALUE: S\$80M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2013



RESIDENTIAL

GREENWICH V

Greenwich V is an integrated commercial and residential development. It comprises of 7 blocks of 5-storey residential condominium with basement car parks, swimming pool and communal facilities together with 2-storey commercial buildings with shops/supermarkets.

The structural system is the conventional RC beam and slab system for the superstructure and flat slab system for the basement. The structure is founded on precast RC driven/jack-in piles.

CLIENT: Far East Square Pte Ltd

PROJECT VALUE: S\$80M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2013



ECAS

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The structural system for 20-storey residential flat is partially flat slab system, from 1st to roof storey with peripheral beam as well as the conventional beam/slab system at multi-story carpark and landscape area. The basement system comprised of flat slab system together with pilecap casted at the same level. The structure is founded on concrete bored-piles.

CLIENT: Wan-Li Development Pte Ltd

PROJECT VALUE: S\$30M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2009

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CLIENT: Far East Organization Centre Pte Ltd

PROJECT VALUE: S\$60M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2015

SEASTRAND CONDOMINIUM



Erection of 9 blocks of 11 or 12-storey residential building (total of 473 units) in Pasir Ris.

Carparks, substation at partial of 1st & 2nd floor: Cast in-situ reinforced concrete beams and slab system supported by rows of reinforced concrete columns.

One way slab are proposed at middle portion of the drive way area to provide space for M&E requirement.

Environmental Deck at 3rd floor including landscape & swimming pool and deck: Cast in-situ reinforced concrete beams and slab system.

Transfer beams are provided to transfer the loading from the load bearing/shear wall above to the columns below. Appropriate waterproofing system is provided to the architect's specifications.

Apartment Blocks Partial of 1st to 3rd floor, 4th to Roof: Cast in situ reinforced concrete flat plate with reinforced concrete perimeter edge beams supported by rows of reinforced concrete walls and columns. Generally, the slab soffit is flat throughout for ease of construction with limited beam at the M&E opening areas.

CLIENT: F.E. Lakeside Pte Ltd

PROJECT VALUE: S\$63M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2014

www.ecas.com.sg



COMMERCIAL AND HOSPITALITY

SEACARE HOTEL AND OFFICE

The Seacare Hotel project involved erection of a 16-storey (103 rooms) hotel block and additions and alterations works to the existing 9-storey office tower. Transfer trusses were proposed at the 13th storey to cater for the loads from the upper storey of the hotel building and support the transfer floors. All columns and beams are steel structures in order to reduce the self-weight of the building above the 13th storey.

Seacare Hotel was the recipient of the Merit Award for "The Innovative, Efficient and Productive Use of Steel Structures in the Built Environment" in the category of Commercial or Retail Structures at the 2014 Structural Steel Excellence Awards.

CLIENT: Seacare Co-operative Ltd

PROJECT VALUE: S\$17M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2012

AWARD: Structural Steel Excellence Award 2014



SILOSO BEACH RESORT



Siloso Beach resort is a rustic eco-hotel on Sentosa Island. The project consists of 2 blocks of 3-storey buildings & ancillary single storey buildings involving the addition of 1-storey to a 3-storey building and 12 nos. of single storey villas. The Resort is built within nature giving a feeling of relaxation.

The foundation adopted for the project is RC driven pile with pilecap. CBP wall and RC retaining wall are involved in this project. The super structural system adopted is conventional cast in-situ reinforced concrete beams and one-way slab system. Glass skylight canopy is on roof level of Block A.

Picture credits: Siloso Beach Hotel website

CLIENT: Siloso Beach Resort Pte Ltd

PROJECT VALUE: S\$12M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2006

HOTEL KAI



Kai Hotel is a heritage hotel in the heart of Bugis. ECAS was appointed C&S Consultant for the addition and alteration to a 2-storey conservation block with attic and addition of a new 5-storey rear extension. The building conserves the shophouse exterior while the interiors are nicely fitted for a comfortable hotel.

The hotel has been awarded with the BCA Green Mark Award (Gold) due to its structural conservation and energy efficiency.

Picture credits: Hotel Kai website

CLIENT: Sinves Investment Consultancy Pte Ltd

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2013

SCOTTS SQUARE



34/43-storey building with a 3-storey commercial podium and 25/34-storey residential flats with basement shops and carpark, swimming pool and communal facilities. The foundation adopted for the project is cast-in-situ bored pile with pilecap.

The framing of the superstructure predominantly consists of cast-in-situ RC shear walls and RC columns. The structural floor system on the podium floors consists of conventional beams and slabs as well as post-tensioned beams and slabs for long span floor located at shops and the carparks area on 1st to 6th storey, 7th to 8th storey at podium and 11th storey floors at block-1. 10th storey at block-2 consists of transfer beams/plates with conventional beams and slabs to form whole building main transfer structural system.

Picture credits: Scotts Square website

CLIENT: Wheelock Properties (Singapore) Limited

PROJECT VALUE: S\$200M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2010



COMMERCIAL AND HOSPITALITY

SCOTTS SQUARE

34/43-storey building with a 3-storey commercial podium and 25/34-storey residential flats with basement shops and carpark, swimming pool and communal facilities. The foundation adopted for the project is cast-in-situ bored pile with pilecap.

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CLIENT: Wheelock Properties (Singapore) Limited

PROJECT VALUE: S\$200M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2010



SILOSO BEACH RESORT



Siloso Beach resort is a rustic eco-hotel on Sentosa Island. The project consists of 2 blocks of 3-storey buildings & ancillary single storey buildings involving the addition of 1-storey to a 3-storey building and 12 nos. of single storey villas. The Resort is built within nature giving a feeling of relaxation.

The foundation adopted for the project is RC driven pile with pilecap. CBP wall and RC retaining wall are involved in this project. The super structural system adopted is conventional cast in-situ reinforced concrete beams and one-way slab system. Glass skylight canopy is on roof level of Block A.

Picture credits: Siloso Beach Hotel website

CLIENT: Siloso Beach Resort Pte Ltd

PROJECT VALUE: S\$12M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2006

HOTEL KAI



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ECAS' ROLE: Consulting Services

COMPLETION DATE: 2013

SEACARE HOTEL AND OFFICE



The Seacare Hotel project involved erection of a 16-storey (103 rooms) hotel block and additions and alterations works to the existing 9-storey office tower. Transfer trusses were proposed at the 13th storey to cater for the loads from the upper storey of the hotel building and support the transfer floors. All columns and beams are steel structures in order to reduce the self-weight of the building above the 13th storey.

Seacare Hotel was the recipient of the Merit Award for "The Innovative, Efficient and Productive Use of Steel Structures in the Build Environment" in the category of Commercial or Retail Structures at the 2014 Structural Steel Excellence Awards.

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Picture credits: Siloso Beach Hotel website

CLIENT: Siloso Beach Resort Pte Ltd

PROJECT VALUE: S\$12M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2006



GREENWICH V



Greenwich V is an integrated commercial and residential development. It comprises of 7 blocks of 5-storey residential condominium with basement car parks, swimming pool and communal facilities together with 2-storey commercial buildings with shops/supermarkets.

The structural system is the conventional RC beam and slab system for the superstructure and flat slab system for the basement. The structure is founded on precast RC driven/jack-in piles.

CLIENT: Far East Square Pte Ltd

PROJECT VALUE: S\$80M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2013

POMO PARADIZ



A&A to basement, 1st to 6th storey of existing shopping cum office complex at 1 Selegie Road (Paradiz Centre).

The structural system of the existing building is mainly RC system and the building is resting on a raft foundation. For the new A&A works, conventional reinforced concrete (RC) slab and beam system, steel columns and beams with composite slab are adopted. New micro piles are introduced at the new passenger lift area.

CLIENT: Paradiz Investment Pte Ltd

PROJECT VALUE: S\$14.5M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2009

THE MEZZO



The Mezzo is a 28-storey commercial and residential development comprising of 6-storey commercial and carpark podium block and 28-storey residential tower block.

The structural framing for the podium consists of mainly RC slab and beam system, and the framing for the tower consists of mainly flat slab system. The transfer floor is at the 7th storey to meet the architectural requirements. The structure is founded on cast-in-situ reinforced concrete bored piles.

CLIENT: SB (Ruby) Development Pte Ltd

PROJECT VALUE: S\$35M

ECAS' ROLE: Consulting Services

COMPLETION DATE: 2011