



*Inbisco Factory, Ayudhaya*



*Waraporn Sompong Foods*



*NSCI Cement Plant, Malaysia*



*Giant Tyre Center, Bangkok*



*Maptaphut Olefin, Rayong*

March 2025

## **CIVIL AND STRUCTURAL ENGINEERS CO., LTD.**

Civil and Structural Engineers Co., Ltd. (CASE) was established in January, 1994 by a group of experienced engineers and architects. The group composed of proficient academics and professional practitioners. They had played important roles in design and construction supervision of many building and infrastructure projects for both public and private sectors.

Until now, CASE provided services for Thai and international communities. We had done many types of projects, such as, design of office building, factory, residential building and infrastructure. Moreover, we provided construction supervision, survey for structure conditions and research development.

Our services will help you from the beginning through finishing of the project. We take care your project with well qualified personnel. Moreover, our past experiences from many successful projects, such as, Mitsubishi Motor Corporation (Thailand) headquarter complex, 13<sup>th</sup> Asian games center, APIC Yamada factory and King Mongkut's University of Technology (Thonburi) library building, will ensure that your project will complete with quality and satisfaction.



## **FIELDS OF SPECIALIZATIONS**

Our company have intensive experience in the following fields.

- high-rise buildings
- factory and industrial buildings
- bridge structures
- civil infrastructures.
- civil engineering software development.

## **SCOPE OF SERVICES**

- Preliminary studies
- General planning
- Detailed designs
- Tenders
- Supervision
- Specialized consulting
- Research and development.

# SELECTED PROJECT



## WARAPORN SOMPONG FOODS NEW FACTORY

Construction : Expected to complete in November 2023

**Owner** : Waraporn Sompong Foods Co., Ltd.  
**Construction Management** : Civil and Structural Engineers Co., Ltd.

### The Structure

Waraporn Salapao, a well-known local Thai Food Manufacturing, expands her food Production plant with total budget of 500 MB for not only more variety of products but also larger product volume. The new plant, locating in Sai noi, Nonthaburi., having 30 m. wide and 288 m. long with total area of 12,000 sq.m..



# RECYCLED FIBER PULP FACTORY IN PRACHINBURI

Design Completed : December 2020

**Owner** : Golden Crane (Prachinburi) Co., Ltd.  
**Main Consultant** : Chengdu Engineering Co., Ltd. of China Light Industry  
**Structural Design** : Civil and Structural Engineers Co., Ltd.

## The Structure

A Factory for fiber pulp recycling in Prachinburi province of Thailand. The factory has an approximated total area of 22,000 sq.m with an output capacity of 400,000 MT.



# INBISCO THAILAND NEW FACTORY BUILDINGS

Design Completed: June, 2014

**Owner:** Inbisco (Thailand) LTD.  
**Architect:** CASE Co., Ltd.  
**Engineer:** CASE Co., Ltd.

## The Structure

Inbisco (Thailand) is a part of Mayora group of Indonesia (with well-known food brands such as Kopiko, Danisa, Torabika). The company planned to expand production lines in Thailand. There are three main buildings in the expansion project, i.e., two storeys building for production lines and warehouse, coal boiler building and canteen building. Total construction area is 24,500 Sq.m and construction cost is around 400 million baht. Flat slabs with 12 m span band beams were designed to support the production lines. Steel structures were also used for upper parts of buildings.



# GIANT TIRE WARHOUSE AND OFFICES

Service Completed : February 2018

**Owner** : GIANT TIRE (SUARNABHUMI) Co., Ltd.  
**Consultant** : Civil and Structural Engineers Co., Ltd.  
**Engineer** : Civil and Structural Engineers Co., Ltd.

## The Structure

GIANT TIRE (SUARNABHUMI) Co., Ltd. is a new building three new buildings in the area Lat Krabang, Bangkok to support the business. Automotive service solutions such as :

- Distribution of all types of tires.
- Change the engine oil for all types of cars.
- Repair parts accessories for all types of cars.

On the space 6,200 Sq. m.

1. Building A Cockpit service center (4 storeys)
2. Building B ETD truck service center (3 storeys)
3. Building C Warehouse (1 storeys)



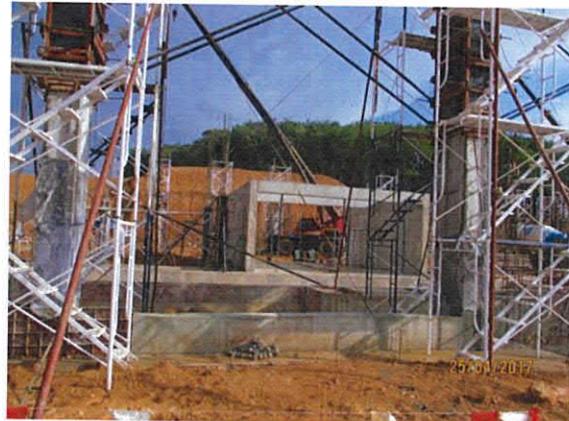
# MERCATOR MEDICAL (THAILAND) NEW PLANT EXPANSION SONGKHLA

Service Completed : January 2018

**Owner** : Mercator Medical (Thailand) Ltd.  
**Consultant** : Civil and Structural Engineers Co., Ltd.

## The Structure

The Mercator Medical (Thailand) New plant expansion Project is in Amphur Rattaphum, Songkhla Province. This project shall be applied to the design of RC. Building, Steel Structure Building & Equipment Foundation with total construction area approx. 40 rai. The Construction progress is On going.



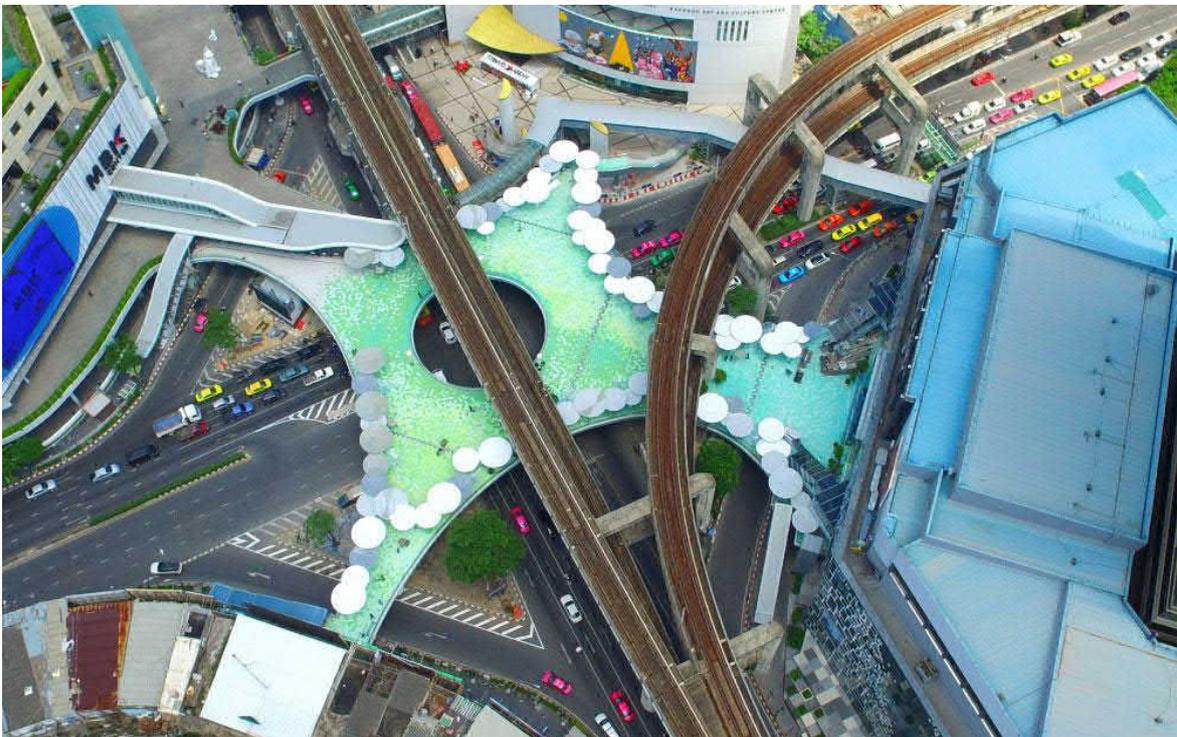
# BTS LINK BRIDGE SIAM PARAGON

Design Completed : June, 2017

**Owner** : Siam Piwat Company Limited  
**Architect** : Urban Architects Co.,Ltd.  
**Structural Engineers:** Civil and Structural Engineers Co., Ltd.  
**Contractors** : Sino-Thai Engineering & Construction Public Company Limited

## Details

This project is proposed to improve the sky walking path by connect all together and create activity area over Pathum-wan intersection. The steel structures with metal deck floor system were selected to minimize weight and depth of structure. The construction was completed and opened in August, 2017. Now it's becomes a new landmark of Bangkok.



# MEGA HOME MAE SOD

Design Completed : March, 2013

**Structural Engineer :** Civil and Structural Engineers Co., Ltd.

## The Structure

A mall for Whole Sale Construction Materials in Mae Sod, TAK. The building area is approximately 20,000 sq.m.



## NTI RAYONG FACTORY NO. 2

Design Completed: June, 2013

**Architect:** CASE Co., Ltd.

**Engineer:** CASE Co., Ltd.

### The Structure

A factory building for NCR TRB Industry Co., Ltd. in Rayong, Thailand. The building floor was design for a live load of 1,000 and 2,000 kg/sq.m. The total area of the building is 2,200 sq.m. Roof structure was designed using steel while other parts were designed using reinforced concrete. Most of the reinforced concrete elements were pre-casted from factory and assembled at site. The construction time was thus reduced to less than five months.



## WSI MINBURI MULTIPURPOSE BUILDING

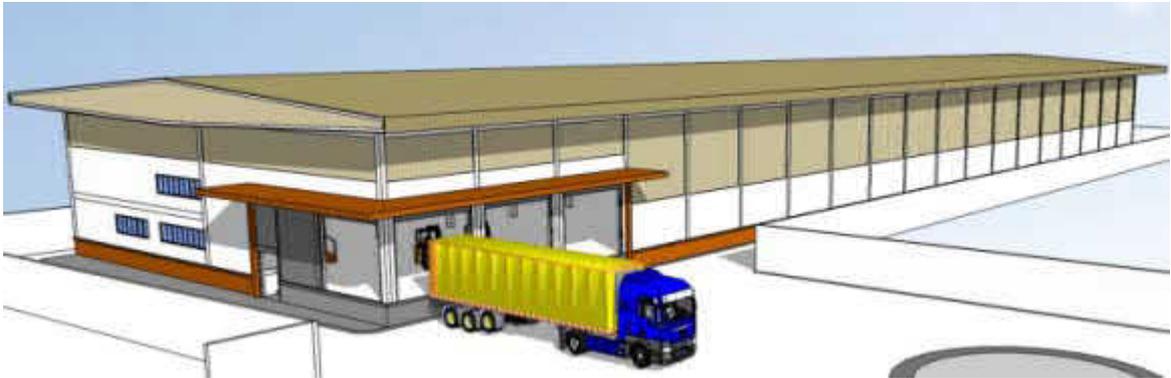
Design Completed: December, 2012

**Architect:** CASE Co., Ltd.

**Engineer:** CASE Co., Ltd.

### The Structure

A multipurpose building for Wattanasuk International Co., Ltd. in Minburi, Bangkok, Thailand. The building floor was design for a live load of 1,000 kg/sq.m. The total area of the building is 3,600 sq.m. To reduce the construction and maintenance cost, the lower part of the building was designed as reinforced concrete structure. On the other hand, the upper part of the building was designed as steel structure to reduce the construction time.

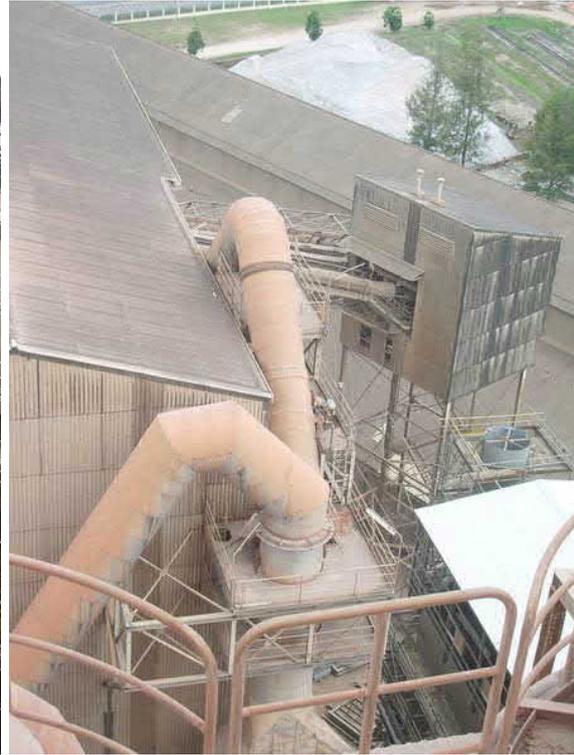


## NSCI CEMENT PLANT PROJECT, MALAYSIA

Service Completed: October 2009

**Owner:** Cement Industries of Malaysia Berhad (CIMA), Malaysia.  
**Structural Engineers:** CASE Co., Ltd.  
**Details:**

The project is in Malaysia. Existing plant was modified for higher efficiency. CASE was assigned to design Pre-heater, Back filter, Cooler, EP process, Control room and Hot gas duct supports.



## BANGKOK CRYSTAL NEW FACTORY

Design Completed: August 2006

**Owner:** Bangkok Crystal Co., Ltd.  
**Architects:** CASE Co., Ltd.  
**Engineers:** CASE Co., Ltd.  
**Details:**

A warehouse and factory building covers an area of approximately 10,000 sq.m. It is in Rayong province, a center of Thai industry. The main structures are steel.



## BETAGRO FEEDMILL FACTORY, LOPBURI

Design Completed: August 2004

**Owner:** Betagro Co., Ltd.  
**Engineers:** CASE Co., Ltd.  
**Details:**

A silo complex situated in Lopburi province. The main structures are steel. The structures must support material weight of 6,000 tons.



## SUARNABHUMI AIRPORT EXTENSION: ADDITIONAL FL. OVER IMMIGRATION AREA

Design Completed: December, 2010

**Architect:** CASE Co., Ltd.

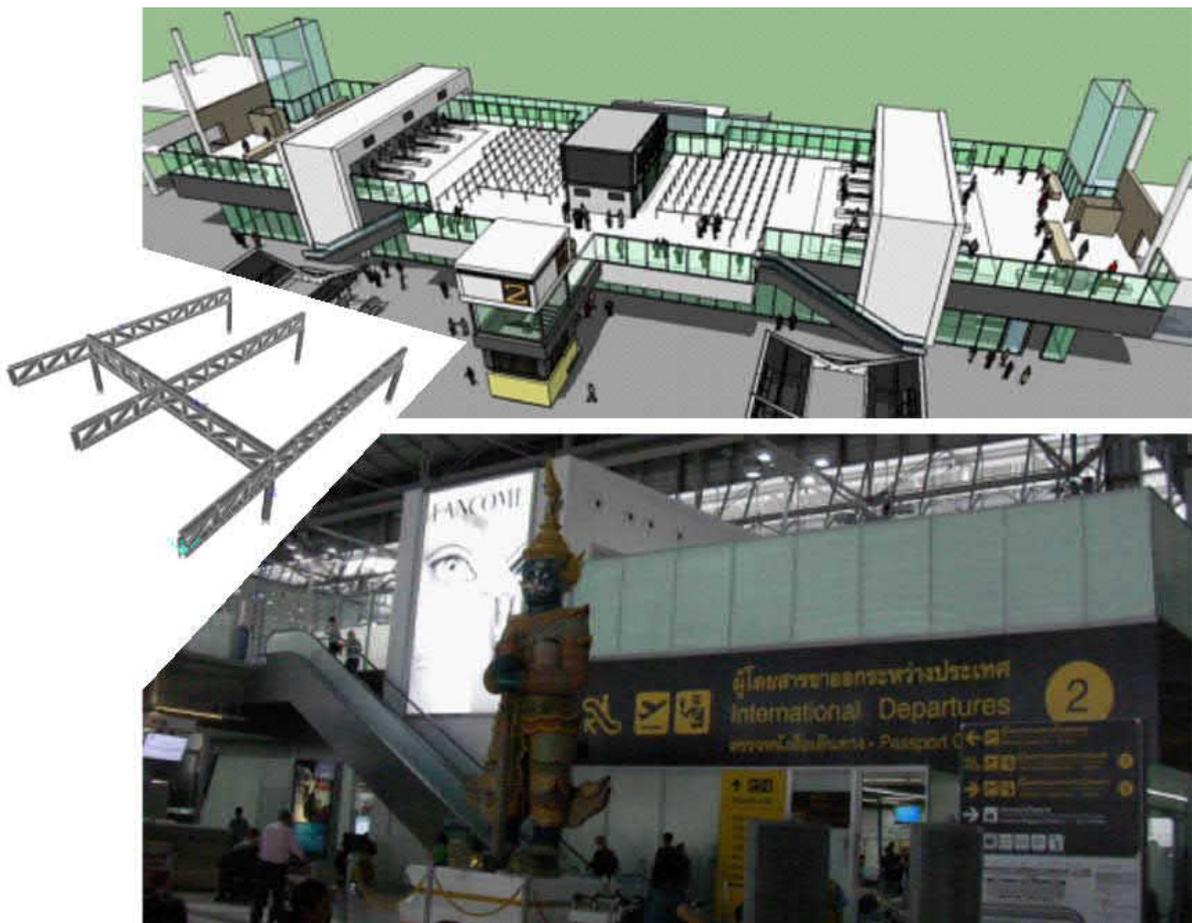
**Engineer:** CASE Co., Ltd.

### The Structure

The project is an extension of area over immigration counters in the departure lounge of Suvarnabhumi airport. The construction of this project must be conducted in the terminal building which has to be operated around the clock for over 100,000 passengers per day. The additional structures must sit on the existing structures. These conditions were taken into account in the design process.

Light weight concrete panels and steel structures were used to reduce the total weight of structures. Moreover, the structures can be pre-fabricated outside the busy terminal building, then transported into the terminal and finally assembled at site using bolts. The structures have to be matched with the existing structures so that the maximum span of the trusses supporting the extension area is 18 m.

Total area = 3,500 sq.m



# PIPE RACK OF MAPTAPHUT OLEFINS PROJECT

Service Completed : February 2009

**Owner:** Map Ta Phut Olefins Co., Ltd. (MOC).  
**Engineers:** CASE Co., Ltd.  
**Details:**

The project is in Map Ta Phut, Rayong province. Reinforced concrete pipe rack structure was designed. Some parts of the structure were designed as pre-cast elements in order to speed up construction progress.



## NTS MINI BLAST FURNACE

Service Completed: September 2007

**Owner:** NTS Steel Group PCL.  
**Consultants:** S.D.C. Co., Ltd. and Civil and Structural Engineers Co., Ltd.  
**Details:**

A mini-blast furnace for steel industry in Thailand. The project was constructed in a land plot of 165 rai and its value is 3,000,000,000 Baht. Turnkey system was used. The Consultant was responsible for the main tasks as following:-

- Prepare tender documents and drawings for turnkey bidding.
- Assist owner in selecting contractor.

The Consultants completed the works and continue to work on project management phase. The project management phase was finished in 17 months.



# SELECTED PROJECTS BUILDING

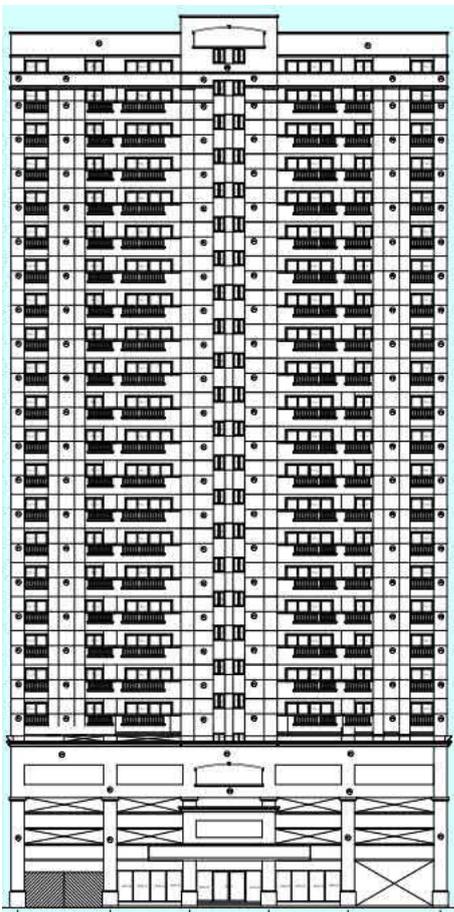
# ABOVE SUKHUMVIT 39

Design Completed : 2022

**Owner** : Siamese Asset PCL.  
**Structural Engineers:** Civil and Structural Engineers Co., Ltd.

## The Structure

Renovation of an unfinished residential building to be a hotel and service apartment. The building is in a prime area of Bangkok, in Soi Sukhumvit 39. The building has 25 storeys. Our work was to evaluate the strength of existing structures, strengthening to support new functions and design of additional elements such as new lift shafts.



# LANDMARK AT MRTA STATION - RAMA 9

Design Completed : 2021

**Owner** : Siamese Asset PCL.  
**Structural Engineers:** Civil and Structural Engineers Co., Ltd.

## The Structure

A mixed-use project near MRTA station of MRT Orange line. The project composes of 3 high-rise buildings consisting of office units, commercial units, residences and a hotel. The front building has 17 storeys while the middle building has 37 storeys and the rear building has 29 storeys. Total floor area is around 120,000 sq.m. Most of the structures for these buildings are flat slab with columns and shear cores. The buildings were designed to resisted wind and earthquake according to Thailand standard.



## PLUM CONDO DON MUEANG AIRPORT

Expected Design Completed : 2021

**Owner:** Pruksa Real Estate PCL.  
**Structural Engineers:** Civil and Structural Engineers Co.,Ltd.  
**Details:**

An 8 Storeys Residential Building near Donmueang airport. Total area of the complex is 19,786.46 Sq.m. Almost all steel structure buildings..



ภาพแสดงบรรยากาศจำลอง ใช้เพื่อการโฆษณาเท่านั้น

## THE RESERVE SUKHUMVIT 61

Design Completed : 2018

**Owner:** Pruksa Real Estate PCL.  
**Structural Engineers:** Civil and Structural Engineers Co.,Ltd.  
**Details:**

An 7 Storeys Residential Building on Sukhumvit road. Total land area of the 3-0-34.6 rai. Most of the buildings use post- tensioned system.



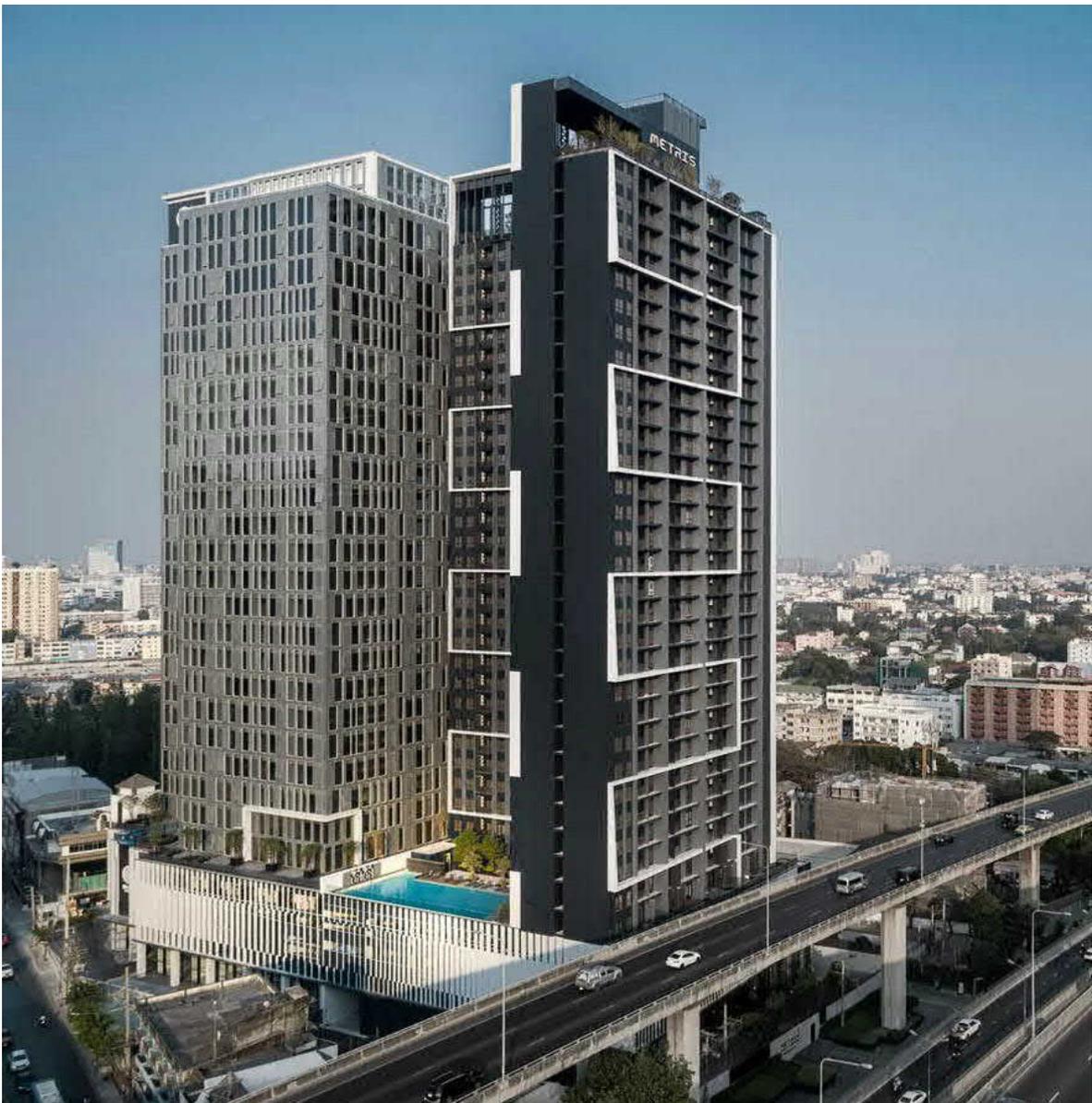
## METRIS RAMA 9 - RAMKUMHANG

Design Completed : 2017

**Owner** : Major Development PCL.  
**Structural Engineers:** Civil and Structural Engineers Co., Ltd.

### The Structure

The project has 2 towers on a common podium, one tower is for office units (27 storeys) and the other is for residential units (33 storeys). Total floor area is 80,500 sq.m. Our work was to do structural design of new structures on existing basements and foundations. Most of the structures for these buildings are flat slab with columns and shear cores. The buildings were designed to resisted wind and earthquake according to Thailand standard.



## WISH SIGNATURE II MIDTOWN SIAM

Design Completed : February 2020

**Owner:** Siamnuwat Co.,Ltd.  
**Engineers:** Civil and Structural Engineers Co., Ltd.  
**Details:**

A residential building complex on Phetchaburi road near Siam Paragon Shopping Mall. The condominium Building has 41 storeys. Total land area of the 3-1-75 rai.



## SIAMESE SUKHUMVIT 48

Design Completed : September 2019

**Owner:** Siamese Asset Co., Ltd.  
**Engineers:** Civil and Structural Engineers Co., Ltd.  
**Details:**

A 40 storeys apartment building with 200 m in height. The building has to resist wind and earthquake load. Since the shape of the building is slender, the lateral loads shall be resisted by lift core in the center of the building and frames with closely spaced columns around the building. Total area is approximately 26,000 sq.m.



## METRIS PATTANAKARN – EKKAMAI

Design Completed : June 2017

**Owner:** Major Development Estate Co.,Ltd  
**Engineers:** Civil and Structural Engineers Co., Ltd.  
**Details:**

A residential building complex on Pattanakarn road. The condominium Building has 29 storeys. Total land area of the 2-1-65 rai.



## THE COLLECTION 16

Expected Design Completed : 2021

**Owner:** Siamese Asset Co., Ltd.  
**Engineers:** Civil and Structural Engineers Co., Ltd.  
**Details:**

The Collection 16 is a mixed development property comprising of two buildings; the seven-storey hotel building to the front, and the 150 meters high rise residential building to the back. Total area of the complex is 37,700 sq.m. A retail passage passes through the hotel on the ground floor and connects pedestrians to the residential tower behind.



## SIAMESE EXCLUSIVE RATCHADA

Expected Design Completed : 2020

**Owner:** Siamese Asset Co., Ltd.  
**Engineers:** Civil and Structural Engineers Co., Ltd.  
**Details:**

The high rise and low-rise towers are treated with different design languages. The residential tower is wrapped with protruded aluminium fins for shading and privacy. Whilst the office tower is wrapped with shorter fins, that are integrated with facade lighting which will become an interactive urban media art for the passerby. Total area of the complex is 36,000 sq.m. This project is an example that variation of uses can be integrated into the same site where people can live, work and play.



## SIAMESE SUKHUMVIT 87

Design Completed : May 2018

**Owner:** Siamese Asset Co., Ltd.  
**Engineers:** Civil and Structural Engineers Co., Ltd.  
**Details:**

Siamese Sukhumvit 87 is a condominium project, developed by Siamese Asset, Siamese Sukhumvit 87 is currently under construction with completion planned in 2020. Condominium comprises of a single building, having 25 floors and includes 372 units.



## MEA KLONGTOEY OFFICE

Design Completed : September, 2013

**Owner:** Metropolitan Electricity Authority  
**Engineers:** Civil and Structural Engineers Co., Ltd.  
**Details:**

An office building of Metropolitan Electricity Authority in Klongtoey, Bangkok. The building has 25 storeys with additional helipad on its deck and underground parking floor. There are also three annex buildings and the total area is 112,000 sq.m with estimated construction cost of 3,130 Million Baht. Most of the buildings use post-tensioned flat slab system.



# CHULALONGKORN UNIVERSITY CENTENARY PARK

Design Completed : March 2017

**Owner:** Property Management Office Chulalongkorn University  
**Engineers:** EEC Co., Ltd. & CASE Co., Ltd.  
**Architect :** N7A Co., Ltd.  
**Details:**

New exhibition and multi-purpose building is designed to celebrate 100 years anniversary of Chulalongkorn University and aim to develop its land for public use. There are also new roads, bicycle lanes, landscapes and central park around the building. The parking area with 200 cars capacity is at the first floor and the second floor is served as multi-purpose functions for many kind of university activities. The roof structure is post-tensioned beam with main span of 42 m. to accommodate large space area for exhibition function. Total working area of this building is about 9,000 sq.m.



## PLUM RANGSIT

Design Completed : May 2016

**Owner:** Pruksa Real Estate PCL.  
**Engineers:** Civil and Structural Engineers Co.,Ltd.  
**Details:**

A Residential Building complex near Bangkok University, Pathum Thani. The complex composes of 3 phase. Each phase 4 buildings. And each building 8 floor. Total area of the complex is 105,000 Sq.m. Almost all building elements were Pre-casted.



## SAMUI AIRPORT

Service Completed : Holding

**Owner** : Bangkok Airways Public Co.,Ltd.  
**Engineer** : Civil and Structural Engineers Co., Ltd.  
**Details:**

Responsible for design of RC. Building, Steel Structure total 24 buildings and Civil Works  
(Project cost approx. 2,000,000,000 Baht)

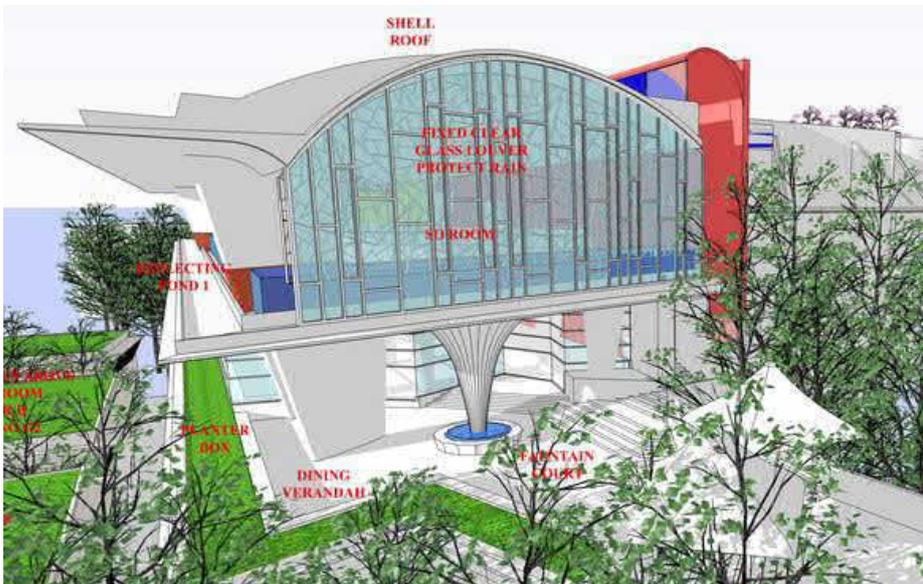


# SOFITEL SO SAMUI

Design Completed: June, 2019 (Planned)

**Architect** : Bunnag Architects Co., Ltd.  
**Structural Engineer** : CASE Co., Ltd.  
**Details:**

This hotel composes of many buildings. One major building is So Room which composes of lobby, dining facilities, kitchen, parking and other central facilities. The building has a thin shell roof with long span beams supporting it. The beam span is approximately 40 m. It was designed as a post-tensioned beam. Other floors was designed mainly as post-tensioned flat slab. Other remarkable buildings are villas with interesting architectural design. Our structures have to support the challenge design.



## PLUM CHANG WATTANA

Design Completed : 2019

**Owner:** Pruksa Real Estate PCL.  
**Structural Engineers:** Civil and Structural Engineers Co.,Ltd.  
**Details:**

A Residential Building complex on Paholyothin road. The complex composes of 4 phase. As the following.

Phase 1 The complex composes of 3 buildings. Area of the complex is 32,000 Sq.m.

Phase 2 The complex composes of 7 buildings. Area of the complex is 49,500 Sq.m.

Phase 3 The complex composes of 5 buildings. Area of the complex is 44,000 Sq.m.

Phase 4 The complex composes of 5 buildings. Area of the complex is 44,000 Sq.m.

Almost all building elements were Pre-casted.



# THE TREE ONNUT STATION SUKHUMVIT 54

Design Completed : 2017

**Owner:** Pruksa Real Estate PCL.  
**Structural Engineers:** Civil and Structural Engineers Co.,Ltd.  
**Details:**

An 8 Storeys Residential Building on Sukhumvit road near BTS Onnut Station Tesco Lotus Onnut and Express way. Total area of the complex is 10,200 Sq.m. Almost all building elements were Pre-casted.



## PLUM CHOKCHAI 4

Design Completed : 2017

**Owner:** Pruksa Real Estate PCL.  
**Structural Engineers:** Civil and Structural Engineers Co.,Ltd.  
**Details:**

A Residential Building complex on Chokchai 4 road near Paolo Memerail Hospital. The complex composes of 2 buildings. Each building 8 floor. Total area of the complex is 20,000 Sq.m. Almost all building elements were Pre-casted.



## BUREAU OF THE BUDGET NEW OFFICE BUILDING

Design Completed : January, 2015

**Owner:** Chulalongkorn University and CASE Co., Ltd.  
**Engineers:** CASE Co., Ltd.  
**Details:**

An office building for Bureau of The Budget, Thailand. The building has 30 storeys with 3 underground parking floors. Total area is approximately 74,000 sq.m. Construction cost is 2,350 Million Baht.



## CORIACEA BOUTIQUE RESORT, PHUKET

Design Completed : February, 2015

**Architect :** Triaxial Co.,Ltd.  
**Engineers:** CASE Co., Ltd.  
**Details:**

A beach front hotel in Phuket, Thailand. The building has 3 storeys with 41 rooms. There is also a long swimming pool.

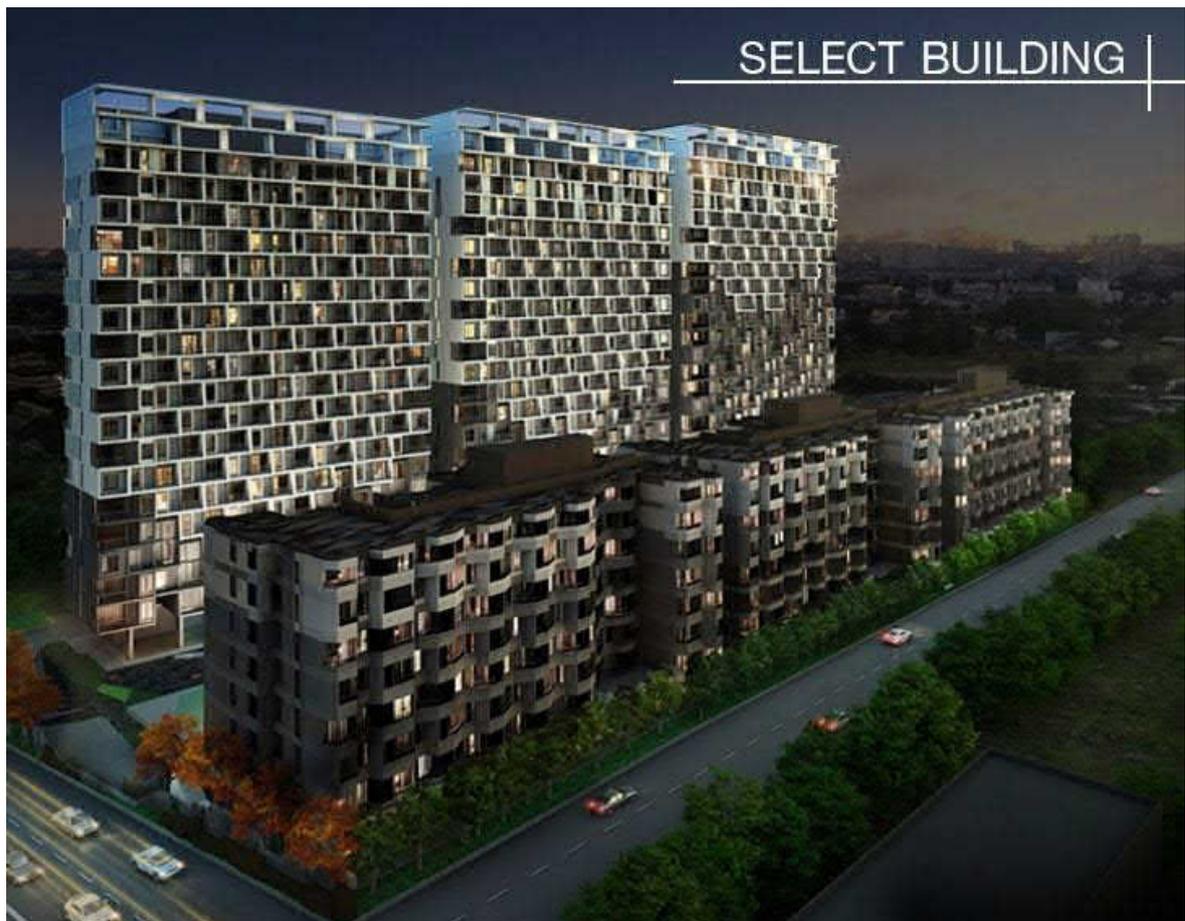


## THAN LIVING, PRACHA-UTHIT

Design Completed : November, 2012

**Owner:**  
**Engineers:** CASE Co., Ltd.  
**Details:**

A residential building complex on Prachauthit road near Ekkamai-Ramintra Expressway, Bangkok. The complex composes of 6 buildings, three buildings with about 20 floors and three buildings with 8 floors. Total area of the complex is 60,000 sq.m. Most of the buildings use post-tensioned flat slab system.



## CHAPTER ONE - MODERN DUTCH

Design Completed : April, 2012

**Owner:** Pruksa Real Estate PCL.  
**Engineers:** CASE Co., Ltd.  
**Details:**

A residential building complex on Rachaburana road near Kasikorn Bank Head Office, Bangkok. The complex composes of 4 buildings. Each building has 27 floors. Total area of the complex is 120,000 sq.m. All buildings use post-tensioned flat slab system.



# FUSE MOBIUS RAMKHAMHAENG STATION

Design Completed : June, 2011

**Owner:** Pruksa Real Estate PCL.  
**Engineers:** CASE Co., Ltd.  
**Details:**

The condominium project on Ramkhamhaeng Road located 300m from the Airport Rail Link Ramkhamhaeng Station composes of four main buildings. Two high rise buildings has 30 storeys and 32 storeys for building A and B respectively. Another two buildings are 12 storeys residential building and the car park building with swimming pool and fitness facilities on its top floor. Total usable area of the project is approximately 79,000 sq.m.

The key structural system for high rise building is bearing wall and precast slab system in order to speed up the construction. Whereas the post-tensioned slab is designed for both medium rise building and car park building. The system is carefully designed to withstand natural disasters such as strong wind and earthquake conforming to international standard and the Department of Public Works and Town & Country Planning's latest standard.



# SUVARNABHUMI AIRPORT EXTENSION : ADDITIONAL FL .OVER IMMIGRATION AREA

Design Completed : December, 2010

**Owner:**

**Engineers:**

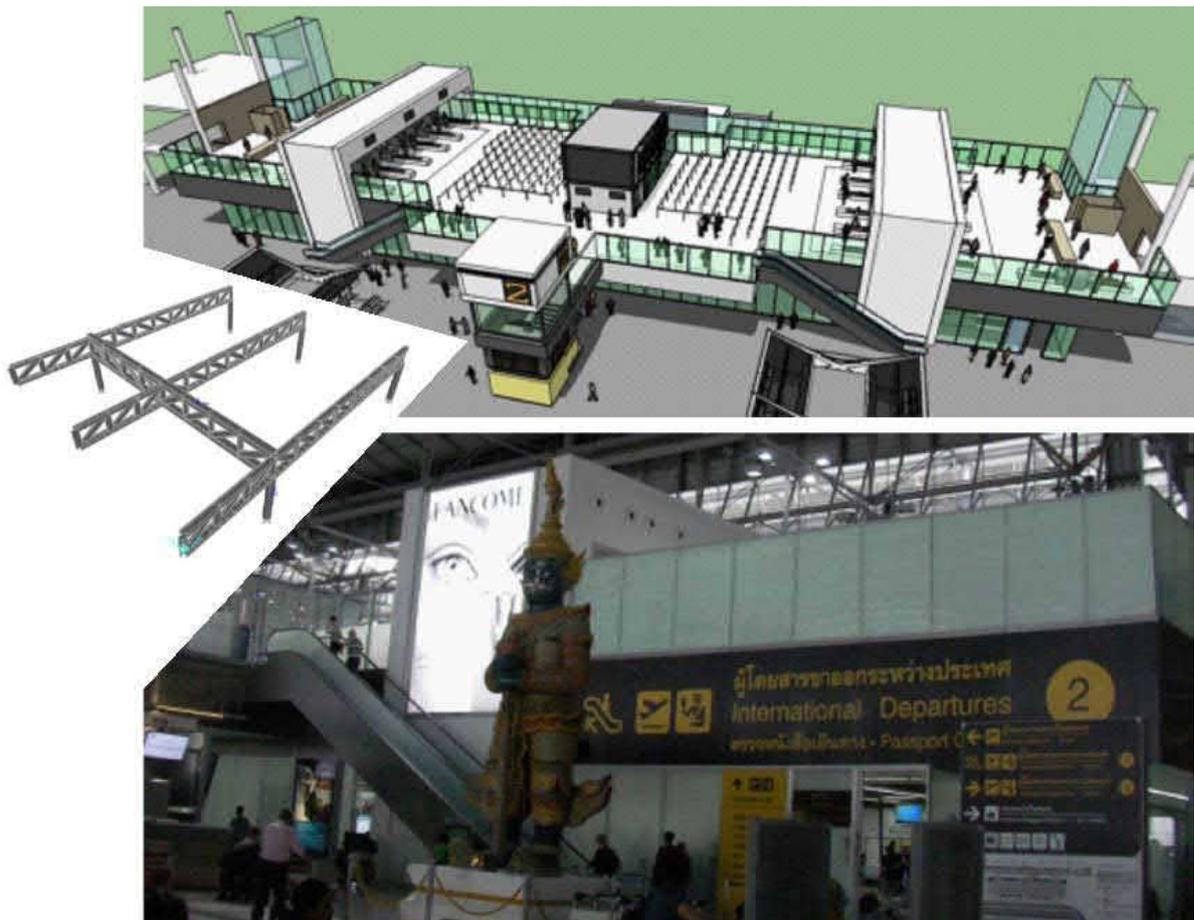
CASE Co., Ltd.

**Details:**

The project is an extension of area over immigration counters in the departure lounge of Suvarnabhumi airport. The construction of this project must be conducted in the terminal building which has to be operated around the clock for over 100,000 passengers per day. The additional structures must sit on the existing structures. These conditions were taken into account in the design process.

Light weight concrete panels and steel structures were used to reduce the total weight of structures. Moreover, the structures can be pre-fabricated outside the busy terminal building, then transported into the terminal and finally assembled at site using bolts. The structures have to be matched with the existing structures so that the maximum span of the trusses supporting the extension area is 18 m.

Total area = 3,500 sq.m



## THE LIGHT SUANLUANG, PHUKET

Design Completed : September, 2010

**Owner:** Phuket Living Co., Ltd.  
**Engineers:** CASE Co., Ltd.  
**Details:**

A residential building locates near Suanluang, Phuket city, Phuket. The building has 16 storeys with a helipad on its top. Building's height is 45 m from reference ground level. Total usable area is approximately 12,155 sq.m.

The structural system is post-tensioned concrete flat slab. The system is carefully designed to withstand natural disaster such as strong wind and earthquake.



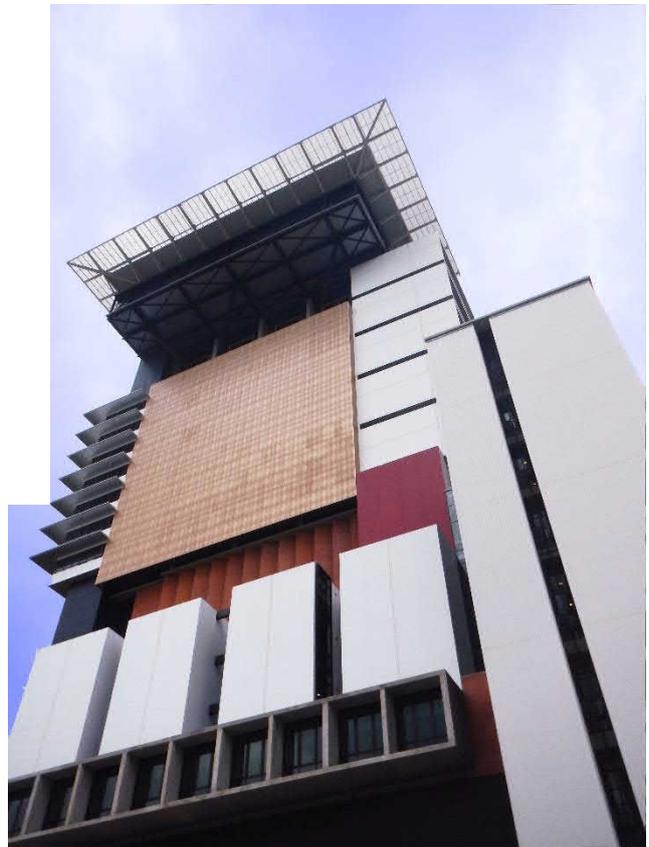
## JAMJUREE 10 BUILDING

Design Completed : September, 2009

**Owner:** Chulalongkorn University  
**Engineers:** Dr.Phoonsak Pheinsusom & CASE Co., Ltd.  
**Details:**

The building is in the main campus of Chulalongkorn University and will be used for international studies. It has 21 storeys with over all height of 111.10 m from reference ground level. Total usable area is approximately 40,000 sq.m.

The structural system is ordinary reinforced concrete beam and slab. There are some parts (e.g. long cantilever roof) which were design as steel structures. The building was carefully designed to withstand natural disaster such as strong wind and earthquake.



## THE SEED TERRE

Design Completed : January, 2009

**Owner:** Pruksa Real Estate PCL.  
**Engineers:** CASE Co., Ltd.  
**Details:**

An 8 storeys apartment building on Ratchayothin junction, Bangkok: Total area is approximately 14,000 sq.m. The main structural system composes of pre-cast concrete plank with thick topping resting on cast-in-situ bearing wall. No beam was used in order to limit floor height. Since the ground floor is used for parking space, transferring beam is used at the second floor level to transfer forces from the bearing walls to columns. The depth of transferring beam was limit and thus integrated wall-beam system was used. With this structural system, the project can be completed in less than 10 months. The structures were carefully designed to withstand natural disaster such as wind and earthquake.



## THE SEED SATHON TAKSIN

Design Completed : July, 2008

**Owner:** Pruksa Real Estate PCL.  
**Engineers:** CASE Co., Ltd.  
**Details:**

An 8 storeys apartment building near BTS Wongvienyai station, Bangkok: Total area is approximately 9,000 sq.m. The main structural system composes of pre-cast concrete plank with thick topping resting on cast-in-situ bearing wall. No beam was used in order to limit floor height. Since the ground floor is used for parking space, transferring beam is used at the second floor level to transfer forces from the bearing walls to columns. The depth of transferring beam was limit and thus integrated wall-beam system was used. With this structural system, the project can be completed in less than 10 months. The structures were carefully designed to withstand natural disaster such as wind and earthquake.

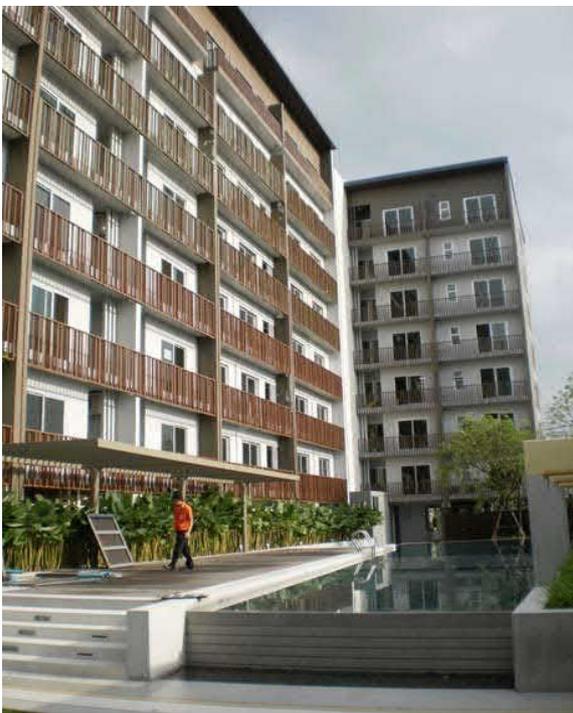


## THE SEED CHAENG WATTANA

Design Completed :June, 2008

**Owner:** Pruksa Real Estate PCL.  
**Engineers:** CASE Co., Ltd.  
**Details:**

An 8 storeys apartment building on Chaeng Wattana road near Muang Thong Thani, Nonthaburi: Total area is approximately 10,000 sq.m. The main structural system composes of pre-cast concrete plank with thick topping resting on cast-in-situ bearing wall. No beam was used in order to limit floor height. Since the ground floor is used for parking space, transferring beam is used at the second floor level to transfer forces from the bearing walls to columns. The depth of transferring beam was limit and thus integrated wall-beam system was used. With this structural system, the project can be completed in less than 10 months. The structures were carefully designed to withstand natural disaster such as wind and earthquake.



## THE SEED PHAHOL YOTHIN

Design Completed : March, 2008

**Owner:** Pruksa Real Estate PCL.  
**Engineers:** CASE Co., Ltd.  
**Details:**

An 8 storeys apartment building in Soi Phaholyothin 14, Bangkok: Total area is approximately 8,000 sq.m. The main structural system composes of pre-cast concrete plank with thick topping resting on cast-in-situ bearing wall. No beam was used in order to limit floor height. Since the ground floor is used for parking space, transferring beam is used at the second floor level to transfer forces from the bearing walls to columns. The depth of transferring beam was limit and thus integrated wall-beam system was used. With this structural system, the project can be completed in less than 10 months. The structures were carefully designed to withstand natural disaster such as wind and earthquake.



## **GROW APARTMENT - RAMINDRA**

Design Completed :February, 2006

**Owner:**

**Engineers:**

CASE Co., Ltd.

**Details:**

An apartment complex on Ramindra road near Fashion Island Department store, Bangkok. The complex composes of 2 buildings. Each building has 8 floors. Total area of the complex is 20,000 sq.m. Flat slab post-tensioned system was used for the complex.



## DORMITORIES FOR SIRIRAJ HOSPITAL

Design Completed :March, 2005

**Owner:** Siriraj Hospital  
**Engineers:** CASE Co., Ltd.  
**Details:**

Two high rise buildings. Each building has 20 storeys. The building composes of two main parts. The lower part of the building is a car park. The upper part is for dormitory use. Total working area is approximately 100,000 sq.m.

The structural system is post-tensioned concrete flat slab. The system is carefully designed to withstand natural disaster such as strong wind and earthquake.



## VICHAIYUT MEDICAL CENTER

Design Completed : June, 2004

**Owner:** Vichaiyut Hospital Co., Ltd.  
**Engineers:** CASE Co., Ltd.  
**Details:**

A high rise building. There are 24 storeys with a helipad on its top and a basement floor. The building composes of three main parts. The lower part of the building is a car park. The middle part is for OPD and the upper part is for internal patients. Total working area is approximately 50,000 sq.m.

The structural system for the lower part is reinforced concrete flat slab. The system for middle and upper parts is reinforced concrete beam and slab system. Since this building will be used as a hospital, its structural systems are carefully designed to withstand natural disaster such as strong wind and earthquake.



## AYARA BANN THAI KAMALA HOUSING PROJECT

Design Completed :2003

**Owner:** Southern Land Development Co.,Ltd.  
**Engineers:** CASE Co., Ltd.  
**Details:**

A project to develop luxury homes on a hill side with Andaman sea in front. Approximated functional area of each home is ranging from 500 – 2,000 sq.m. Every home is uniquely designed to suit its location and has private swimming pool. The structure of the buildings is reinforced concrete.



## DEEVANA PATONG RESORT & SPA HOTEL

Design Completed : 2002

**Owner:** Deevana Patong Resort & Spa  
**Engineers:** CASE Co., Ltd.  
**Details:**

A four star resort hotel in Phuket province. The hotel has 232 rooms with approximated functional area of 8,000 sq.m. The hotel composes of many low-rise buildings (4 storeys) around a swimming pool. The structure of the buildings is reinforced concrete.



# SELECTED PROJECTS INFRASTRUCTURE

## BTS LINK BRIDGE SIAM PARAGON

Design Completed : June, 2017

**Owner:** Siam Piwat Company Limited  
**Engineers:** Civil and Structural Engineers Co., Ltd.  
**Details:**

This project is proposed to improve the sky walking path by connect all together and create activity area over Pathum-wan intersection. The steel structures with metal deck floor system were selected to minimize weight and depth of structure. The construction was completed and opened in August, 2017. Now it's becomes a new landmark of Bangkok.



## COMMUTER TRAIN DARK RED LINE

Design Completed : February, 2016

**Owner:** The State Railway of Thailand.  
**Engineers:** AEC Co., Ltd. & CASE Co., Ltd.  
**Details:**

The SRT Dark Red Line (Rangsit - Thammasat) is an extension part of planned SRT Red Line (Bang Sue - Rangsit) suburban railway system to serve northern area of Bangkok. There are four typical at-grade substations along the 14 km route. Total length per one station is about 150 m. including platform for CT train, entrance area, building services and parking lot.



**BANGKOK MONORAIL GREY LINE**  
**(Preliminary and Tender Document)**  
**BANGKOK, THAILAND**  
Design Completed : 2015

**Owner:** Bangkok Metropolitan Administration, Thailand  
**Engineers:** Civil and Structural Engineers Co.,Ltd.  
**Details:**

The new monorail Grey Line is one of the planned mass transit line in Bangkok. The route of phase 1 runs from Watcharapol (Link with MRT Pink Line) and ends by connection at Thong Lor BTS station. Its path runs along North-South axis at the east side of Bangkok. Total length of phase 1 is about 16.6 km. There are 15 elevated stations along the route. The main guideway beam structure is designed by 5-span continuous systems with typical span length of 25m. and supported by large single bored pile at each column.

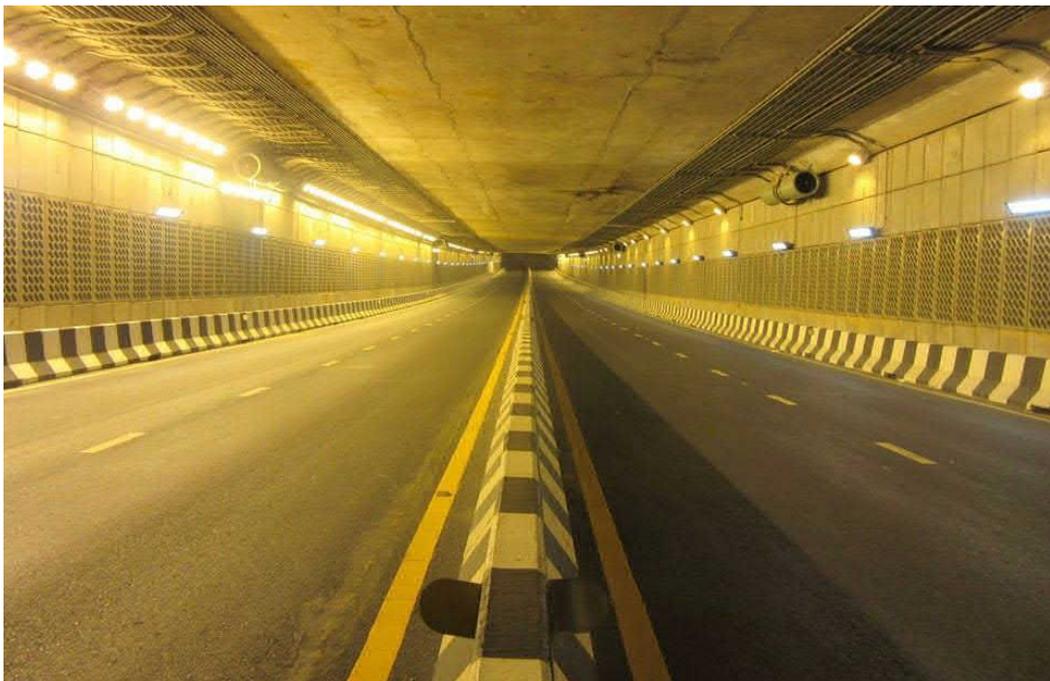


# GRADE SEPARATION AT SAMKONG AND TAINAN INTERSECTION PHUKET, THAILAND

Design Completed : November 2010

**Owner:** Department of Highways, Thailand  
**Engineers:** Civil and Structural Engineers Co.,Ltd.  
**Details:**

Two underpass structures at Samkong and Tainan intersection are designed to facilitate public transportation in the central area of Phuket. One minor 2-lanes bridge on Yaowarat road is also designed at Samkong intersection.



# LAKSI OVERPASS BANGKOK, THAILAND

Design Completed : 2009

**Owner:** Department of Highways  
**Engineers:** Civil and Structural Engineers Co., Ltd.  
**Details:**

4 lanes overpass is designed in fully precast system in both viaduct and bridge pier. Viaduct is precast segmental box girder with external tendon. Maximum span length is 40m and constructed by continuous system. Precast pier shall be casted in production yard and transported to the site for installation.



# MRT BLUE LINE EXTENSION

Design Completed : March,2008

**Owner:**

Mass Rapid Transit Authority of Thailand

**Engineers:**

Civil and Structural Engineers Co., Ltd.

**Details:**

An extension of existing MRT Blue line. The extension will have 16 elevated stations. Most of the stations are located in the middle of existing roads. The station structures have to carry load of MRT vehicles, people and other functional components.



# CONSTRUCTION STAGE ANALYSIS SUVARNABHUMI INTERNATIONAL AIRPORT

Design Completed : 2005

**Owner:** The Airport of Thailand PCL.  
**Engineers:** Civil and Structural Engineers Co., Ltd.  
**Details:**

All passenger terminal buildings of Suvarnabhumi International Airport are designed and checked by performing construction stage analysis. The construction method and as-built drawings are prepared by the main contractor (ITD). The buildings are mainly checked by DIN 18 800 standard.



## KHONKAEN UNDERPASS AT HIGHWAY ROUTE NO.2 AND NO.12

Design Completed : November 2005

**Owner:** Department of Highways, Thailand  
**Engineers:** Thai DCI Co., Ltd, CASE Co., Ltd.  
**Details:**

An underpass at the main intersection in Khon Kaen city with 1,035 m length has been designed to serve 4 traffic lanes. The wall system is constructed by tangent bored pile diameter 1.00m. The closed section is 195m length for supporting the traffic in another direction at the intersection.



## LAEMSING BRIDGE, CHANTABURI

Design Completed : March 2004

**Owner:** DEPARTMENT OF RURAL ROADS  
**Engineers:** Wishakorn Co., Ltd. & Civil and Structural Engineers Co., Ltd.  
**Details:**

The bridge is designed to cross Chantaburi River at the river mouth so it becomes one of the famous tourist attractions in that area. It is 1.06 kilometers long, 15 meters width, serving two traffic lanes and sidewalk on both sides. The structure at the main span is balanced cantilever with span arrangement of 37.5+65+37.5 m. Prestressed I-Girder and cast-in place deck slab is designed for typical span 30 m. The substructure is rigid frame by using double columns and crossbeam on top.

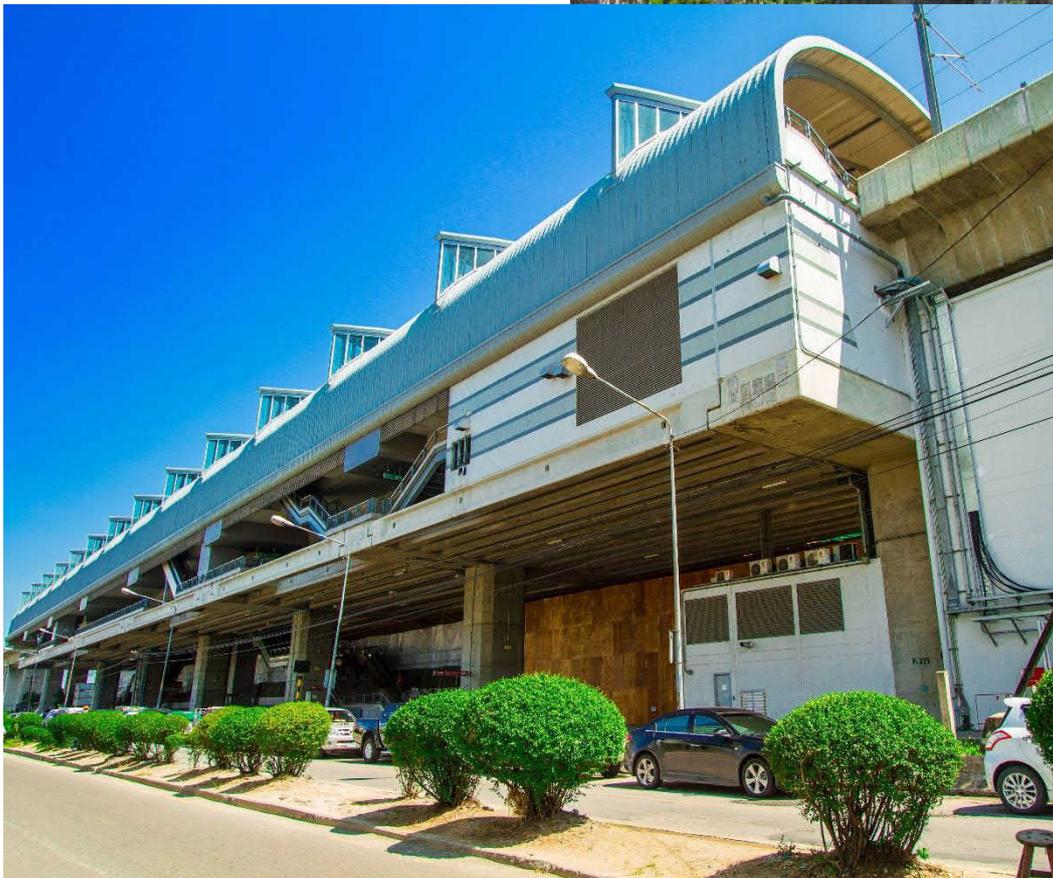


## AIRPORT RAILLINK

Design Completed : August 2004

**Owner:** State Railways of Thailand  
**Engineers:** CASE Co., Ltd.  
**Details:**

An all elevated train line with 26 kilometers length linking Suvarnabhumi International Airport with downtown of Bangkok. There is one underground station in the airport and one city terminal in Makkasan. Other than these stations, there are six stations along the route.



# ROAD OVER PRAPA CANAL

(A PRELIMINARY STUDY)  
Study Completed: July, 2003

**Owner:** Department of Highway.  
**Engineers:** CASE Co., Ltd. (Under Asian Institute of Technology)  
**Details:**

A project to improve delivery of raw water to the treatment plants of Metropolitan Waterworks Authority (MWA). The existing opened canal will be covered by concrete structures to protect the raw water from contamination. The cover structures will be used for traffic and mass transit and have to be designed according to AASHTO and DOH loading. The project is about 30 kilometers long with the estimated cost of 14,000 millions Baht.

An important structure for the project composes T-girders aligned transversely to the traffic direction and supported by bearing walls on both sides of the canal. The girders are 34 meters long. The dual functions of the structure are canal protection and bridge deck for traffic.

