



ISO 9001:2015  
CERTIFIED

*Development Planning  
from Conception to Completion*

## Asian Engineering Consultants Corp., Ltd.

- AEC was founded in 1977 by a group of Thailand's leading professional engineers to offer consulting services for public and private construction projects. With the ability of the company to deliver professional services with integrity, efficiency and on-time delivery, AEC soon gained recognition from Thai authorities and international funding agencies. Since then, AEC has grown rapidly to become a large firm employing over 400 people. It is a measure of AEC's progress operating under the management philosophy of "Project Development Planning from Conception to Completion", AEC has been contracted to undertake a complete range of planning and follow-up studies for some of the nation's most prestigious development projects. Over the past 40 years AEC has successfully delivered more than 200 projects ranging from feasibility study, detailed design, construction supervision and project management of roads, expressways, highways, rails, mass rapid transits, airports and deepsea ports.
- On April 30, 2020, AEC changed its management structure after 63.75% of its shares had been acquired by Stonehenge Inter Ventures Co., Ltd. (STV) ("a subsidiary company of Stonehenge Inter Public Co., Ltd. (STI)"), who are a providing consultancy services in engineering, construction management and supervision, with best expertise and skillful management team of over 30 years in engineering industry, it have teams who are fully equipped with professional experiences. This fruitful acquisition will promote synergy as a whole and not only result in an increase in business turnover, but also performance improvement and competitiveness enhancement, hence, leading the company to flourish gracefully and sustainably in the long run.
- The hallmarks of AEC's success are attributable to the breadth and depth of its management and professional staff, the confidence shown by clients and international financial institutions, its affiliation with recognized specialists and companies, and its extensive experience in all areas of economic evaluation, detailed engineering design, construction supervision and project management.
- AEC is proud to announce that it has received ISO: 9001 certification in December 2015, the first engineering consultancy firm in Thailand that has been awarded such 2015 version of international standard.
- AEC has registered for a professional license and membership as follows:
  -  Council of Engineers Thailand (Registration No. 0019/44)
  -  Consultant Database Center, Public Debt Management Office, Ministry of Finance (Registration No. 76, Level 1)
  -  ADB Consultant Management System of Asian Development Bank (Registration No. 000728)
  -  The Engineering Institute of Thailand under H.M. The King's Patronage (Membership No. C1-006)
  -  Member of The Consulting Engineers Association of Thailand (Membership No. 2009)





Many of the projects handled by AEC were financed through grants or loans from international financing agencies, such as the World Bank (IBRD), the Asian Development Bank (ADB), the Japan International Cooperation Agency (JICA), the Canadian International Development Agency (CIDA), the Australian Agency for International Development (AusAid), the European Economic Cooperation (EEC), the Kreditanstalt für Wiederaufbau of Germany (KfW) and the United Nations Development Programme (UNDP).



AEC has worked closely with many of the Thai Government's project development agencies and international organizations such as:

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>• Airports of Thailand Public Co., Ltd. (AOT)</li> </ul>   | <ul style="list-style-type: none"> <li>• Office of Transport and Traffic Policy and Planning (OTP)</li> </ul>        |
| <ul style="list-style-type: none"> <li>• Bangkok Metropolitan Administration (BMA)</li> </ul>   | <ul style="list-style-type: none"> <li>• Port Authority of Thailand (PAT)</li> </ul>                                 |
| <ul style="list-style-type: none"> <li>• Department of Public Works and Town &amp; Country Planning (DPT)</li> </ul>                            | <ul style="list-style-type: none"> <li>• PTT Public Company Limited (PTT)</li> </ul>                                 |
| <ul style="list-style-type: none"> <li>• Department of Rural Roads (DRR)</li> </ul>   | <ul style="list-style-type: none"> <li>• PTT Exploration and Production Public Company Limited (PTTEP)</li> </ul>    |
| <ul style="list-style-type: none"> <li>• Department of Highways (DOH)</li> </ul>  | <ul style="list-style-type: none"> <li>• Royal Irrigation Department (RID)</li> </ul>                                |
| <ul style="list-style-type: none"> <li>• Expressway Authority of Thailand (EXAT)</li> </ul>   | <ul style="list-style-type: none"> <li>• State Railway of Thailand (SRT)</li> </ul>                                  |
| <ul style="list-style-type: none"> <li>• Industrial Estate Authority of Thailand (IEAT)</li> </ul>  | <ul style="list-style-type: none"> <li>• Thai Airways International Public Company Limited (Thai Airways)</li> </ul> |
| <ul style="list-style-type: none"> <li>• Marine Department (MD)</li> </ul>  | <ul style="list-style-type: none"> <li>• Department of Aid of Foreign Countries, China</li> </ul>                    |
| <ul style="list-style-type: none"> <li>• Mass Rapid Transit Authority of Thailand (MRTA)</li> </ul>   | <ul style="list-style-type: none"> <li>• Department of Roads, Lao PDR (DOR)</li> </ul>                               |
| <ul style="list-style-type: none"> <li>• Neighbouring Countries Economic Development Cooperation Agency (Public Organization) (NEDA)</li> </ul> | <ul style="list-style-type: none"> <li>• Government of the People's Republic of Bangladesh</li> </ul>                |
| <ul style="list-style-type: none"> <li>• Office of the Permanent Secretary, Ministry of Tourism and Sports (MOTS)</li> </ul>                    | <ul style="list-style-type: none"> <li>• Japan International Cooperation Agency Thailand Office (JICA)</li> </ul>    |
| <ul style="list-style-type: none"> <li>• Office of the National Economic and Social Development Board (NESDB)</li> </ul>                        | <ul style="list-style-type: none"> <li>• Japan Development Institute (JDI)</li> </ul>                                |
|   | <ul style="list-style-type: none"> <li>• Ministry of Public Works and Transport, Cambodia (MPWT)</li> </ul>          |
|   | <ul style="list-style-type: none"> <li>• Ministry of Public Works and Transport, Lao PDR (MPWT)</li> </ul>           |



# THE STUDY OF PPP (PUBLIC - PRIVATE PARTNERSHIP ANALYSIS)

In recent years, the Thai government has initiated the PPP program to facilitate implementation of those planned infrastructure projects. AEC has been entrusted to carry out a number of PPP studies namely:

- Selection of Private Entity for Operation and Maintenance (O&M) of Bang Pa-in - Nakhon Ratchasima and Bang Yai - Kanchanaburi Motorway
- PPP of 3 Airports' Seamless Connection by High Speed Rail (HSR)
- Study and Analysis to Increase the Private Roles in Train Operation according to Section 24 of Public - Private Partnership Act, B.E. 2556
- Study and Analysis of Public - Private Partnership of High Speed Train: Bangkok - Rayong Project according to Section 24 of Public - Private Partnership Act, B.E. 2556
- Bangkok Mass Transit Yellow Line Project: Lat Phrao-Samrong Section
- Revision of Tender Documents and Conducting Work in accordance with Act on Private Participation in State Undertaking, B.E. 2535 for Bang Yai - Bang Sue Mass Rapid Transit Line
- Establishment of Term of Reference and Evaluation on Selection for Private Co-Investment for Bang Yai - Ban Pong Motorway Project
- Selection of Private Participation in the Extensions of The Bangkok Mass Transit System Project
- Review the Feasibility, Tender Evaluation, Providing Advice and Recommendation for Selection of Private Entity for Bang Pli-Suksawasdi Expressway and Motorway Route No. 37: Outer Bangkok Ring Road (Bang Pli - Bang Khuntien Expressway) (Suksawasdi - Bang Khuntien)



The outline of the program:

- Project feasibility study
- Investment options
- Risk analysis
- PPP options (incompliance with Acts, B.E. 2535 and 2556)
- Environmental assessment analysis (Notification of Natural Resources and Environment Ministry)
- Public hearings (Rule of the Office of the Prime Minister on Public Consultation, B.E. 2548)
- Select the private entity for investment







AEC has also provided services to many private enterprises such as:

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- Bangsaen Mahanakorn Ltd., Part.
- BP Petroleum Development Ltd.
- Capital Development Ltd.
- CTI Engineering International Co., Ltd.
- Don Muang Tollway Public Co., Ltd.
- ESSO (Thailand) Public Co., Ltd.
- Hutchison Laemchabang Terminal Limited
- Italian-Thai Development Public Co., Ltd.
- Kimberly-Clark Thailand Co., Ltd.
- Krungthep Thanakom Co., Ltd.
- Lakewood Country Club Co., Ltd.
- Land & Houses Public Co., Ltd.
- LCB Container Terminal 1 Ltd.
- Louis Berger
- Map Ta Phut Tank Terminal Co., Ltd.
- MDX Lao Company Limited
- Metro Co., Ltd.
- Mitsui Engineering & Shipbuilding Co., Ltd.
- NFC Fertilizer Public Company Limited
- Nopawong Construction Co., Ltd.
- North Park Golf and Sports Club Co., Ltd.
- PTTEP International Limited (Yangon Branch)
- Rayong Terminal Company Limited
- Sagric / Loxley
- SCB Holding Co., Ltd.
- SF Development Company Limited
- Siam Power and Electric Co., Ltd.
- Siam Retail Development Co., Ltd.
- Southern Palm Oil Industry (1993) Co., Ltd.
- SuperAxis Development Pte. Ltd., Singapore
- Thai-German Ceramic Industry Public Co., Ltd.
- Thai-German Dockyard Constructor
- Thai Laem Chabang Terminal Co., Ltd.
- Thai Obayashi Corp., Ltd.
- Thai Pioneer Enterprise Co., Ltd.
- Thai Shell Exploration and Production Co., Ltd.
- Toyota Motor (Thailand) Co., Ltd.
- T.P.C. Prestressed Concrete Co., Ltd.
- Tuntex Textile (Thailand) Co., Ltd.
- Vinylthai Co., Ltd.

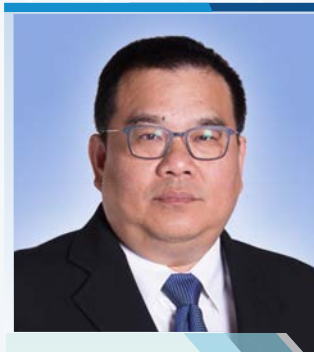
# Board of Directors



Mr. Somkiat Silawatanawong  
Chairman



Mr. Pairuch Laoprasert  
Director



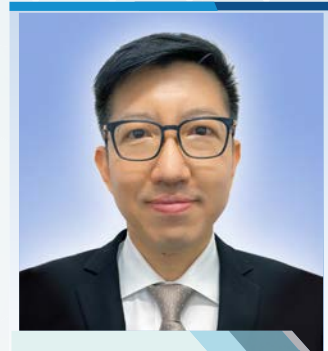
Mr. Somchit Peumpremsuk  
Director



Mr. Kittisak Suphakawat  
Director



Mr. Issarin Suwatano  
Director



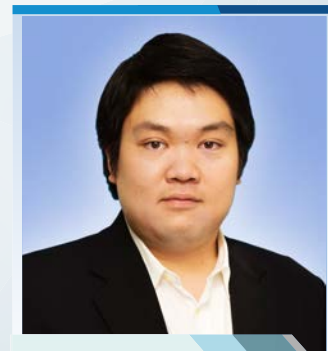
Mr. Sithichai Sereepattanapol  
Director



Mr. Charoon Patai  
Director



Mr. Sompon Limpawutiwanont  
Director



Mr. Niphat Santathadaporn  
Director



# Executive Committee



Mr. Pairuch Laoprasert  
Chairman



Mr. Somkiat Silawatanawong  
Director



Mr. Somchit Peumpremsuk  
Director



Mr. Kittisak Suphakawat  
Director



Mr. Issarin Suwatano  
Director



Mr. Sithichai Sereepattanapol  
Director



Mr. Charoon Patai  
Director



Mr. Paiboon Chokpraisin  
Director



Mr. Thanakorn Chaithirapinyo  
Director



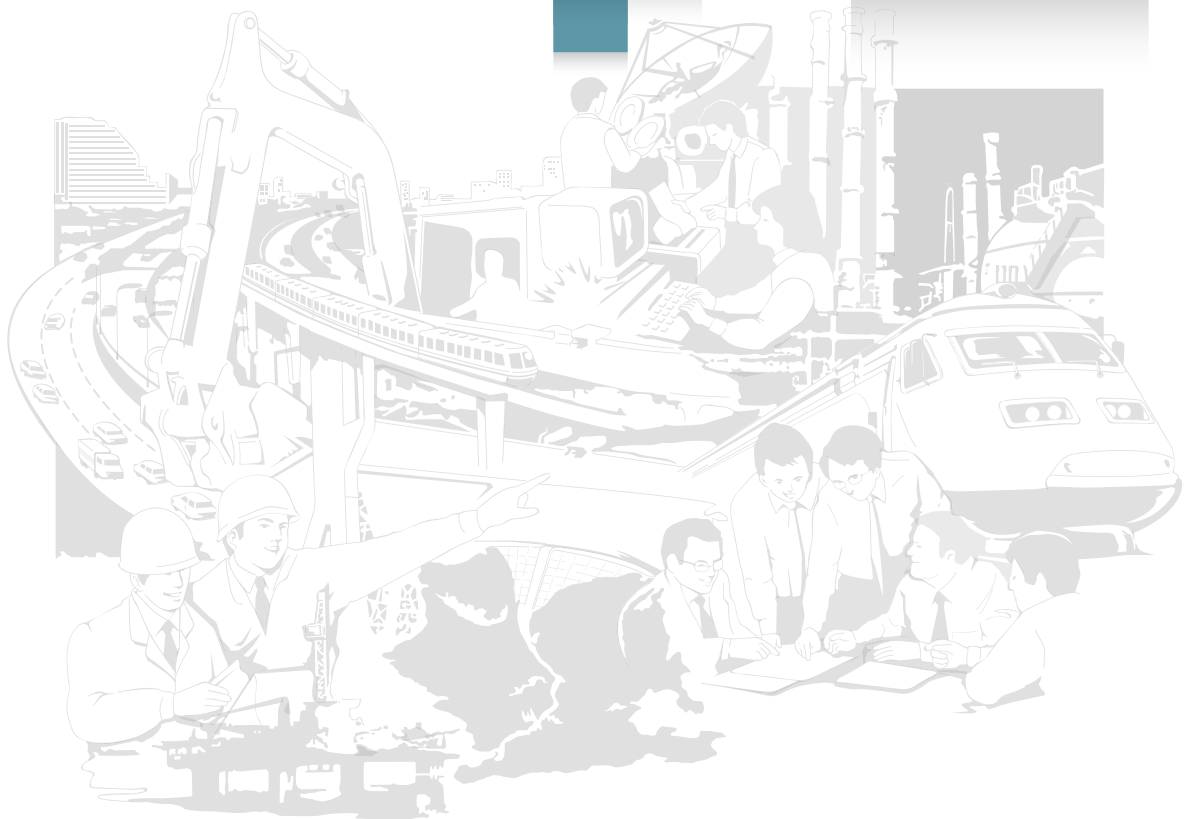
Mr. Sarawoot Suebchaiwang  
Director



Mr. Sompon Limpawutiwaranont  
Director

*AEC*

*"Project Development Planning  
from **Conception**  
to **Completion**"*



*Some of Major Projects*





# Bridge



## THE BHUMBHOL 1&2 BRIDGES on INDUSTRIAL RING ROAD

Contract 1: Southern Area

- Cable-stayed bridge crossing the Chao Phraya River with main span 398 m. and two pylons.
- Major interchange at Pu Chao Saming Phrai Road

Contract 2: Northern Area

- Cable-stayed bridge crossing the Chao Phraya River with main span 326 m. and the back span 128 m.
- Major interchange at Rama III Road

Contract 3: Western Area

- Central interchange connecting two cable-stayed bridges
- Major interchange at Suk Sawat Road

**Project Cost : 8,740 Million Baht**  
**Type of Works**

- Construction Supervision  
(2001 - 2005, Completed 4 months ahead of schedule)



## CHAO PHRAYA RIVER CROSSING BRIDGE IN THE AREA OF PHRA SAMUTCHEDI DISTRICT, SAMUT PRAKAN PROVINCE



### Type of Works

- Environmental impact assessment, and detailed design  
(2014 - 2016)





## BRIDGES ACROSS MEKONG RIVER



### THE FRIENDSHIP BRIDGE II (MUKDAHAN - SAVANNAKHET)

Project Cost : 2,400 Million Baht

#### Type of Works

- Detailed design (1999-2000)  
and construction  
Supervision (2002-2006)



### THE FRIENDSHIP BRIDGE IV (CHIANG KHONG - HOUAYXAY)

#### Type of Works

- Construction supervision  
(2010 - 2013)



### THE FRIENDSHIP BRIDGE V (BUENG KAN - PAK XAN)

#### Type of Works

- Feasibility study and detailed design  
(2013 - 2014)





## THE RAMA VII BRIDGE CONSTRUCTION PROJECT

### Project Outline

- Rama VII Bridge 290 m., viaduct 335.87 m. on Thonburi side and 184.80 m. on Phra Nakhon side, in total 933.19 m. of pre-stressed concrete box girder constructed by cast in-place balanced cantilever method

- **Project cost: 1,008 Million Baht**

### Type of Works

- Feasibility study and preliminary design (1981), review the feasibility study and perform the detailed design (1985-1986) and constructionsupervision (1990-1992)



## PHRA NANG KLAO (NONTHABURI) AND PATHUM THANI BRIDGES

### Project Outline

- Phra Nang Klao (Nonthaburi) Bridge 329.10 m., viaduct 216 m. on both sides of Nonthaburi, in total 545.10 m. of pre-stressed concrete box girder

- **Project cost: 505.77 Million Baht**

- Pathum Thani Bridge 260.20 m., viaduct 167.29 m. on the east and 125 m. on the west of Pathum Thani, in total 552.49 m. of pre-stressed concrete box girder

- **Project cost: 140.05 Million Baht**

### Type of Works

- Feasibility study, detailed engineering design, preparation of tender documents, prequalification of tenderers, evaluation of tenders, formalization of final construction contract and construction supervision



## THE RAMA IV BRIDGE

### Project Outline

- Rama IV Bridge 134 m., viaduct 72 m. on each side of Nonthaburi, in total 278 m. of pre-stressed concrete box girder
- **Project cost: 1,511.72 Million Baht** (for bridge and east-west connecting road (Contract 1))

### Type of Works

- Feasibility study (1993), detailed design – part 1 (1994-1995) and part 2 (1996-1997), land acquisition – part 1 (1998-1999) and part 2 (1999-2000)



## KIAK KAI BRIDGE AND CONNECTING ROAD

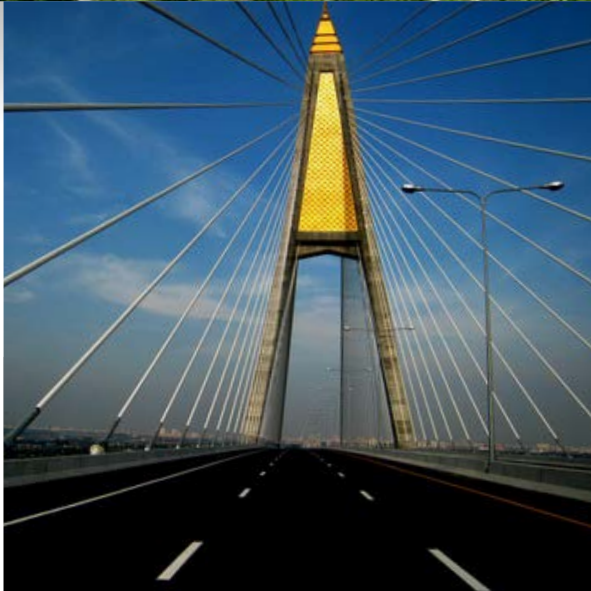
### - Project Outline

- 3.4 kms of 4-lane road
- One flyover and 2 interchanges
- Main bridge crossing the Chao Phraya River 400 m. with a span arrangement of 50+90+120+90+50 = 400 m.

### Type of Works

- Feasibility study and initial environmental examination (2000-2001)





## KANCHANAPHISEK BRIDGE

(Part of SOUTHERN OUTER  
BANGKOK RING ROAD)

**Project Cost : 22,000 Million Baht**

### Type of Works

- Environmental impact assessment
- Detailed design and construction supervision (1996-2002)

## Expressway

### ATNARONG - RAMINDRA EXPRESSWAY

#### Type of Works

- Detailed design (1990 - 1992)







## ▲ BURAPHAWITHI EXPRESSWAY (BANG NA - BANG PHLI - BANG PAKONG)

### Type of Works

- As the turnkey design consultant  
(1995-1999)

## ▲ UTRAPHIMUK EXPRESSWAY (DON MUANG TOLLWAY)

### Type of Works

- Construction supervision  
(1997 - 1999)





## ▲ THE CONSTRUCTION OF THE EXPRESSWAY CONNECTING BANG PHLI-SUK SAWAT TO INDUSTRIAL RING ROAD

### Project Outline

- 3 elevated roads
- 4 elevated ramps
- 1 off-ramp
- Toll collection plazas

- **Project cost 2,417 Million Baht**

### Type of Works

- Construction supervision (2008-2011)

## ▶ THE CONSTRUCTION OF THE EXPRESSWAY CONNECTING SI RAT EXPRESSWAY, PORTION D TO CHATURATHIT ROAD, SECTION KOR

### Project Outline

- 1-lane ramp
- 4-lane toll collection plaza together with 4 toll booths with the total length of 550 m.
- Walkway of 1.5 m. wide with the total length of 57 m.
- Improvement of the elevated toll surveillance building
- Installation of electronic toll collection system and traffic control system

- **Project cost 200 Million Baht**

### Type of Works

- Detailed design and construction supervision (2013-2014)







## TECHNICAL ASSISTANCE TO THE SECOND STAGE EXPRESSWAY SYSTEM IN BANGKOK

### Project Outline

- The North-South route from Bang Khlo to Chaeng Watthana Road and the East Route from Rama VI Road to Sri Nakharin Road with a total length of about 40 km
- Bang Pa-In-Pak Kret Expressway, 30 km in length, starting at the end of Chaeng Watthana Road running north up to Chiang Rak Noi Interchange to provide a connection to Thammasat University which was one of the sites for the 1998 Asian Games

### Type of Works

- Feasibility study (1982-1983)  
and construction supervision (1990-2001)



## KATOO-PA TONG EXPRESSWAY, PHUKET PROVINCE

### Project Outline

- Elevated viaduct 2.0 km and dual tunnels 1.9 km, in total 3.9 km, of 4-lane carriageway (2-lane for motorcycles and the rest for other vehicles)

- **Project cost 7,865 Million Baht**

### Type of Works

- Feasibility study and detailed design (2013-2014)





## ▲ CHIANG MAI MIDDLE RING ROAD

### Type of Works

- Detailed design (1994-1995)  
and construction supervision (1995-2001)



UNDERPASS

### INTERCHANGE



# Highway

## ▶ PATTAYA INTERCHANGES

### Type of Works

- Detailed design (1989)







## THE GREATER MEKONG SUBREGION HIGHWAY EXPANSION PROJECT

Project Cost : 5,090 Million Baht

### Type of Works

- Construction supervision  
(2011-2016)

## ROAD NO. NGOR KRATHUM BAEN COMPREHENSIVE TOWN PLAN OF SAMUT SAKHON PROVINCE

### Type of Works

- Construction supervision  
(2012 - 2014)







# Highway

## CHIANG MAI – CHIANG RAI MOTORWAY PROJECT

AEC and the associated firms were selected by the Department of Highways to conduct a feasibility study and environmental impact assessment of Chiang Mai-Chiang Rai Motorway. This motorway is about 153 km long linking Chiang Mai and Chiang Rai. The project will extend the motorway network and help increase the economic development in the upper northern region and the Quadrangle Economic Zone of Thailand, Laos, Myanmar and Southern China.







## ▲ DETAILED ENGINEERING DESIGN OF INTERCHANGE AT HIGHWAY NO. 11 AND HIGHWAY NO. 1001

### Project Outline

- 6-lane underpass
- Bridge crossing Ping River
- Widening the existing bridge from 4 lanes to 6 lanes

**Project cost 1,100 Million Baht**

### Type of Works

- Survey and detailed design







# Mass Rapid Transit

## THE PURPLE LINE

### (BANG YAI - BANG SUE SECTION)

Project Cost : 60,019 Million Baht

#### Type of Works

- Detailed design and construction supervision of 16 elevated stations with space truss roof, approximately 5,200 sq.m. per station
- Balanced cantilever bridge crossing Chao Phraya River with 84 m. main span, total length 328 m.



## SUARNABHUMI AIRPORT RAIL LINK AND CITY AIR TERMINAL

#### Type of Works

- Feasibility study, detailed design and construction supervision (2003-2009)





## THE RED LINE : BANG SUE - RANGSIT

### Type of Works

- Environmental impact assessment and detailed design (2004-2005)
- Detailed design from Bang Sue-Makkasan section and Bang Sue-Hua Lamphong section (2004-2006)
- Tender management (2008)



## THE YELLOW LINE ▶

### BANGKOK MASS TRANSIT YELLOW LINE PROJECT: LAT PHRAO – SAMRONG SECTION

**Project Cost : 51,810 Million Baht**

#### Project Outline

- Length: 30.4 km with 23 stations
- Straddle monorail system on the elevated structure

#### Type of Works

- Review the feasibility study and design
- Prepare the tender documents for construction tenders
- Prepare the written proposals for operation and maintenance bids
- Assist MRTA for selection of contractor and/or private participation
- Environmental impact assessment

(2013-2017)



### M.R.T. CHALOEM RATCHAMONGKHON LINE (BANG SUE - HUA LAMPHONG SECTION) ▶

#### Type of Works

- Route alignment survey and preliminary design from Hua Lamphong - Huai Khwang (1995-1996)
- Preliminary design and environmental impact study from Bang Sue - Phra Nangklao Bridge and from Hua Lamphong - Bang Khae (1996-1997)
- Construction supervision of depot and trackwork (1999-2003)





## THE GREEN LINE

MRT GREEN LINE  
(NORTH) PROJECT  
MO CHIT  
- SAPHAN MAI  
- KHU KHOT  
SECTION

**Project Cost : 58,862 Million Baht**  
**Project Outline**

- Length: 19 km.
- Elevated Heavy Rail with 16 stations
- Depot and 2 Park & Ride Facilities

### Type of Works

- Project management and construction supervision  
(2015 - on going)



## BTS SILOM LINE EXTENSION : TAKSIN - PHET KASEM

### Type of Works

- Review documents, checking drawings and supervising the procurement and installation of infrastructure and train operation system  
(2009 - 2014)





# Railway

## ▲ TRACK DOUBLING CHACHOENGSAO - KHLONG SIP KAO - KAENG KHOI

Project Cost : 11,348 Million Baht

### Type of Works

- Review feasibility study, detailed design, improve tender documents and environmental impact assessment (2008-2009)
- Construction supervision (2016-2019)

## PAK NAM PHO - DENCHAI ▶

### Type of Works

- Detailed design  
(2015 - 2016)







## TRACK DOUBLING JIRA JUNCTION - KHON KAEN

**Project Cost :**  
**26,153**  
**Million Baht**

### Project Outline

- Double-track 185 km. (at-grade track and elevated track 5.4 km.)
- Signaling and telecommunication systems, automatic train protection system
- 8 overpasses, 26 two way U-Turn bridges, 38 box culverts
- 84 railway bridges
- 1.000 meter-wide track gauge of UIC 54 Standard, ballasted track and monoblock sleeper

### Type of Works

- Construction supervision (2016-2019)



## HIGH SPEED RAIL



## BANGKOK - RAYONG

### Type of Works

- Feasibility study, environmental impact assessment and detailed design

## BANGKOK - NONG KHAI, PHASE 2: NAKHON RATCHASIMA - NONG KHAI

### Type of Works

- Feasibility study, environmental impact assessment and detailed design (2014 - 2015)



## THE NEW RUNWAY AT THE BANGKOK INTERNATIONAL AIRPORT

Project Cost : 664 Million Baht

### Type of Works

- To supervise the construction of the new runway. including associated taxiways, approach lighting, VASIS lights and an Instrument Landing System (ILS)  
(1980-1984)



# Airport

## RAYONG-U-TAPHAO INTERNATIONAL AIRPORT

### Type of Works

- Feasibility study  
(1990 - 1991)





SUARNABHUMI AIRPORT

#### Type of Works

- Site confirmation study (1991)
- General engineering consultant (1992-1999)
- Project management consultant (1999-2007)
- Suvarnabhumi aerotropolis development plan (2002-2003)
- Operation centre of Thai Airways International Public Company Limited at Suvarnabhumi Airport (2003-2005)





## LAEM CHABANG PORT BASIN 1 AND BASIN 2

### Project Outline (Basin 1)

- Container cargo berths
- Bulk berth for sugar and molasses
- Approach channel
- Breakwater
- Warehouses
- Other port facilities
- General cargo berths
- Pier for the export of bulk agricultural products
- Turning basin
- Transit sheds
- Offices

### Project Outline (Basin 2)

- Capacity: containerized cargoes of at least 600,000 TEU per year
- Container cargo berth
- Passenger terminal
- Storage yard
- Turning basin
- Quaywall
- Service boat berth
- Approach channel
- Office building including an Observation room
- Infrastructures and other facilities

### Type of Works

- Detailed design and construction supervision

## Port and Industrial Estate

### SERVICE BOAT BERTH IN LAEM CHABANG PORT

#### Type of Works

- Detailed design (2008)







## MAP TA PHUT INDUSTRIAL COMPLEX AND URBAN AREA, PHASES 1 AND 2

Phase 1: Prepare an outline plan, provide a detailed engineering design of the infrastructures: a road network, railspurs, water supply, sewage treatment, drainage, solid waste disposal, power supply and telecommunication/fire fighting systems and the construction supervision services

Phase 2: Detailed engineering design and construction supervision of the following major components: roads network and drainage, water purification plant, water distribution pipeline and solid waste disposal plant



## NONG KHAE INDUSTRIAL ESTATE

### Type of Works

- Detailed engineering design and construction supervision (1995)





# Water Resources / Irrigations & Dams

## NAM MAE MAO HYDROELECTRIC PROJECT

### Type of Works

- AEC was engaged by the Department of Energy Development and Promotion to perform detailed engineering investigations and design of the Nam Mae Mao Stage I Hydroelectric Project, Fang District, ChiangMai Province. The project involved detailed design and preparation of tender documents for the construction of a concrete gravity dam, 73 m high with a crest length of 140 m, a water conveyance system containing a 2.40 m diameter pressure tunnel more than 1,000 m in length, and a powerhouse with an installed capacity of 4,340 kw. The annual active regulating storage of the Nam Mae Mao reservoir is 20 million cum. which provides irrigation water for an area of 3,000 hectares.



## NAM MAE SAP HYDROELECTRIC PROJECT

### Type of Works

AEC was retained by the Department of Energy Development and Promotion to perform engineering investigations and detailed design of the Nam Mae Sap Hydroelectric Project at Samoeng District, ChiangMai Province. The project required the construction of a rockfill dam 20 m high with a crest length of 70 m and a powerhouse with an installed capacity of 1,450 kw. The annual active regulating storage of the reservoir is 65,000 cu.m.

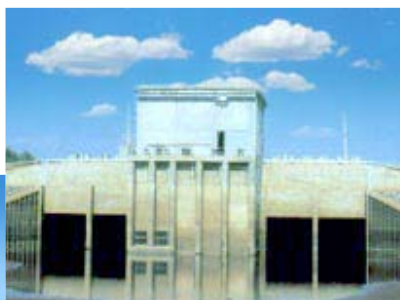




## CONSTRUCTION SUPERVISION OF MAE KUANG IRRIGATED AGRICULTURAL DEVELOPMENT PROJECT (PHASE II)

### Type of Works

- AEC was retained by the Royal Irrigation Department to undertake construction supervision of the Mae Kuang Irrigated Agriculture Development Project (Phase II). The aim of the project was to irrigate 28,000 ha. of agricultural land extending over the Mae Kuang River Basin in the provinces of Chiang Mai and Lamphun by constructing three dams and associated works.



### SUPERVISION OF THE CONSTRUCTION OF THE PUMP IRRIGATION STAGE I PROJECT IN PA MONG AREA



AEC was retained by the Mekong Secretariat and ESCAP to undertake construction supervision of the Pump Irrigation Stage I Project in the Pa Mong Area. The project provided irrigation, drainage and flood control for an area of 8,700 ha. and consisted of a regulator built at the mouth of the Huai Mong River, Nong Khai province, together with extensive diking to form a reservoir. The reservoir will provide irrigated water during the dry season. The project was financed by the European Economic Community (EEC) and implemented by the National Energy Administration.





## ▲ FRIENDSHIP BRIDGE IV (CHIANG KHONG - HOUAYXAY)

### Project Outline

- Border control facilities (BCF), Thailand and Lao PDR sides

### Type of Works

- Construction supervision  
(2010-2013)

Building

## ▶ OPERATION CENTER OF THAI AIRWAYS INTERNATIONAL PUBLIC COMPANY LIMITED AT SUVARNABHUMI AIRPORT

### Type of Works

- Construction supervision  
(2003-2005)







## INTERNATIONAL CONVENTION AND TRADE EXHIBITION CENTER, CHIANG MAI PROVINCE

▲ **Project Cost : 1,867 Million Baht**  
consisted of:

- Front building of 10,000 sq.m.
- Central building of 17,000 sq.m.
- Rear building of 47,000 sq.m.
- Promotion Center Building of 12,000 sq.m. for development and distribution of goods of small and medium sized enterprises

### Type of Works

- Construction supervision  
(2010-2012)

## MAE FAH LUANG UNIVERSITY COMPLEX

### Type of Works

- Master planning  
(2000)







## LAKEWOOD GOLF COURSE

### Type of Works

Land fill (Earthwork Balancing)

Drainage

Main entrance road and golfcart tracks

- AEC was engaged by Lakewood Real Estate Co., Ltd. to undertake the detailed design and construction supervision of all major Civil work components for Lakewood Country Club Project located at Km 18 on the Bang Na-Trad Highway. The project area of about 2,200 rai comprised 800 housing units and a 27 hole championship golf course.

## Golf Courses





## NORTH PARK GOLF COURSE (RAJPRUEK CLUB)

### Type of Works

- First of its kind railway underpass
- Depressed course with intensive drainage design
- Earthwork self balancing with no extra fill material imported

AEC was engaged by North Park Real Estate co., Ltd. to undertake project detailed design and construction supervision of all of the major civil work components for the North Park Project comprising an 18 hole championship golf course, infrastructure for real estate development around the golf course and the railway underpass at the entrance.







## FEASIBILITY STUDY AND DETAILED DESIGN OF THE CONSTRUCTION OF STUNG BOT BORDER CONTROL FACILITY AND ACCESS ROAD TO NATIONAL ROAD NO. 5 PROJECT, THE KINGDOM OF CAMBODIA

The feasibility study and detailed design of Stung Bot Border Control Facility on the area of 600x300 m. or about 180,000 sq.m. (112.5 rai) consists of border control facility, buildings, cargo distribution center and container yard, utilities systems, facilities and access road from Thai border to Ban Stung Bot to National Road No. 5, the Kingdom of Cambodia. Detailed Description of Actual Services Provided :

- . Survey and collect data of the existing traffic and analyze the future traffic volumes.
- . Assess the initial environmental impact.
- . Study interchange configurations and make comparison.
- . Design pavement and analyze the settlement.
- . Perform the detailed design of border control facility, buildings, cargo distribution center and container yard, utilities systems and other facilities.
- . Perform the detailed design of geometry, structure, drainage system, electrical system and landscape.
- . Survey properties for initial land acquisition.
- . Perform soil testing and material surveying.
- . Arrange public participation activities.
- . Prepare tender documents and estimate construction cost.

## Overseas Projects







## HUAY KON (NAN PROVINCE) – PAK BENG (LAO PDR) ROAD DEVELOPMENT

### Project Outline

- 2-lane double surface treatment feeder road
- 52.03 km of 7.0 m. carriageway width
- 1 m. shoulder width on both sides
- 16 minor bridges and 25 box culverts
- Project cost 799.65 Million Baht

### Type of Works

- Construction supervision  
(2006–2010)



## NORTHERN ECONOMIC CORRIDOR ( R3-ADB FUNDED SECTION, LAO – PRD )

### Project Outline

- Package A: Asphaltic concrete pavement road 84 km of 6-7 m. carriageway width from the northwest of Lao PDR to Houay Xay at the border of Thailand
- Package B: Asphaltic concrete pavement road 76.8 km of 6-7 m. carriageway width in the northwest of Lao PDR
- Package C: Asphaltic concrete pavement road 66.4 km of 6-7 m. carriageway width and 18.5 km feeder road from the northwest of Lao PDR to Boten at the border of China
- Minor bridges, in total 660 m.

**– Project cost 660 Million Baht**

### Type of Works

- Project coordination, construction supervision and preparation of the social action plan  
(2004–2008)



## THE REHABILITATION OF ROUTE NO. R3 (HOUAY XAY-BAN SOD)

### Project Outline

- 2-lane National Road 84 km
- Project cost 250 Million Baht**

### Type of Works

- Construction supervision  
(2010–2012)





## ▲ THE CONSTRUCTION OF FLYOVER IN YANGON, MYANMAR

### Project Outline

- Shwegondine Flyover at Shwegondine-Kabaaye Pagoda Intersection, total length of 412 m.
- Bayinnaung Flyover at Bayinnaung-Thamine Railway Station Road Intersection (north-south, 2nd layer), total length of 287 m.
- Bayinnaung Flyover at Bayinnaung-Thamine Railway Station Road Intersection (east-west, 3rd layer), total length of 612 m.

**Project cost 482.37 Million Baht**

### Type of Works

- Project management consultant - detailed design, and construction supervision (2012-2013)

# Overseas Projects

## YANGON TRANSPORTATION SYSTEMS MANAGEMENT STUDY

### Type of Works

- To carry out the first major transport study of Yangon, the capital city of Myanmar, by focusing on the corridors connecting the outlying townships to central Yangon (1993-1994)







## ▲ DETAILED DESIGN AND CONSTRUCTION SUPERVISION FOR THE EAST-WEST (E-60) HIGHWAY IMPROVEMENT PROJECT IN GEORGIA

### Project Outline

- E-60 Highway, section Zestafoni – Kutaisi – Samtredia (Georgia), under the east-west highway improvement project, contract package I : New Kutaisi Bypass for the Roads Department of the Ministry of Regional Development and Infrastructure of Georgia.

**Project Construction Cost : EUR 67,749,500.00**

### Type of Works

- Detailed design and construction supervision and site management (2009-2011)

## OUTER CIRCULAR COLOMBO HIGHWAY, SRI LANKA ▶

### Type of Works

- Detailed design (2007)





# FACILITIES



AEC's central headquarter is located on the 9<sup>th</sup> floor of Sathorn Thani Building and on the 21<sup>st</sup> Floor of Sathorn Nakorn Tower and also maintains site offices in order to facilitate communication and coordination between individual projects and the central office.

AEC has its Information Technology center for processing engineering and administrative data that keeps its work running smoothly. Computerization of many activities has been completed and further computer hardware and software being installed and instantly upgraded.

AEC understands the management information system and ensures the seamless functioning of networks, servers and computer services.

AEC also has a complete printing center for preparation of drawings, reports and other documents.







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