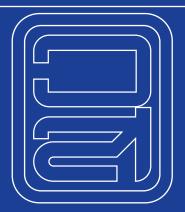
W.AND ASSOCIATES

MECHANICAL ENGINEERING ELECTRICAL ENGINEERING ENERGY CONSERVATION STRUCTURAL ENGINEERING



INTRODUCTION

ENGINEERING SERVICES

W. AND ASSOCIATES's group activities started in early 1965. Group activities were focusing on M&E engineering design services. In 1973, W. AND ASSOCIATES ROP, was then established to be consulting firm specializing in Mechanical, Plumbing, Sanitary, Electrical and Telecommunication

During Thailand's booming economy, W. AND ASSOCIATES Consultants Co., Ltd. and W. AND ASSOCIATES Designs Co., Ltd. were established to cope with the fast-expanding real estate business. W. AND ASSOCIATES engineers had under taken responsibility of numerous projects for various engineering services, both design and construction supervision. Engineering services include electrical power, lighting, fire alarm system, security system, sound system, telephone system, telecommunication system, building automation system, air-conditioning system, ventilation system, smoke control system, vertical transportation, plumbing system, sanitary system, waste treatment system, computer site support system and other related systems for several major buildings and factories in Thailand.

Moreover, in 1996, W. AND ASSOCIATES has been one of companies approved by Department of Energy Development and Promotion (D.E.D.P.) for being registered as a consultant company in energy conservation program initiated by D.E.D.P. W. AND ASSOCIATES, as a registered consultant company, will be auditing the designated buildings and factories, which cover thousands buildings nationwide, to improve building's energy

In 2012 the group has begun the service in Civil/Structural Engineering discipline with all engineering disciplines included in one umbrella, the group now is focusing on providing one-stop, all-in-one engineering service for the client.

MESSAGE FROM PARTNERS

Our company is one of the earliest Thai owned consulting firms specializing in Building System (1965) / Civil and Structural Engineering Designs (2012). From the beginning, our company's philosophy has always been ethical practices with good and practical engineering designs. Our design principles for all of our projects are functionally advanced and economical designs meeting the present and future requirements of our clients, energy saving, ease of operation and maintenance. We will do our utmost to offer the designs which best serve our clients.

BOARD OF DIRECTORS



WICHAI LAKSANAKORN



WITHU RUKSVANICHPONG Co-Founder



CHOKEWICHIT LAKSANAKORN Managing Director

CIVIL AND STRUCTURAL DESIGN

- 1.1 Structural work1.2 Civil and Infrastructure work
- 1.3 Earthwork1.4 Site Drainage
- 1.5 Investigation of Structural Integrity
- 1.6 Non-Destructive Structural Test

MEP DESIGN

- ELECTRICAL SYSTEMS
 - 2.1.1 Power 2.1.2 Lightir
 - Lighting
 - Grounding
 - Emergency Power

2.2 TELECOMUNICATION SYSTEM

- 2.2.1 Premis 2.2.2 PABX
- Telephone Wiring System
- 2.2.4 High Speed Data Cabling System
- 2.3 FIRE ALARM SYSTEM

2.4 SECURITY SYSTEM

- 2.4.1 Closed Circuit Television (CCTV)
 2.4.2 Access Control
- 2.4.3 Burglar Alarm

2.5 AUDIO-VISUAL SYSTEM

2.6 VERTICAL TRANSPORTATION SYSTEM

- 2.6.1 Elevators 2.6.2 Escalators

2.7 BUILDING AUTOMATION SYSTEM (BAS)

- 2.7.1 Energy Management 2.7.2 Comfort Control
- 2.7.3 Maintenance Management

2.8 SANITARY SYSTEM

- 2.8.1 Waste Water Treatment2.8.2 Soil, Waste, Vent piping System2.8.3 Site Drainage System

2.9 AIR CONDITIONING AND VENTILATING SYSTEMS

- 2.9.1 Exhaust and Ventilating System
 2.9.2 Air-Conditioning System
- 2.9.3 Smoke Control System
- 2.9.4 Clean room System 2.9.5 Thermal Storage

2.10 PLUMBING SYSTEMS

- 2.10.1 Cold Water Distribution System
- 2.10.2 Hot Water Distribution System
- 2.10.3 Boiler Plant
 2.10.4 Fire Extinguishing System
 2.10.5 Sprinkler System
 2.10.6 LPG Gas Piping System
 2.10.7 Swimming Pool

PROJECT / CONSTRUCTION MANAGEMENT

- 3.1 Project / Construction Management3.2 Site Supervision

OTHER SERVICES

- 4.1 ENERGY CONSERVATION
 - Auditing Designated Buildings and Factories as a Registered Consultant to Department of Energy Development and Promotion Registration Number (Building Category) : 12
 - Registration Number (Factory Category): 45
 4.1.2 Energy Consumption Surveys in Building
- 4.2 VALUE APPRAISAL AND DUE DILIGENCE SERVICE



PROFESSIONAL RECORDS

HOTEL / RESORT

1.1 Banyan Tree Resort and Spa, Samui

HOTEL / RESORT	RESIDENTAL	COMPUTER CENTERS
1.1 Banyan Tree Resort and Spa, Samui1.2 W. Retreat and Residences, Samui	6.1 Villa Asoke 6.2 Intro by RASA	 10.1 North Park Computer Center, Stock Exchange of Thailand 10.2 United Nations Computer Center, Bangkok, 1972
1.3 InterContinental Hua Hin	6.3 Villa Rachatewi	10.3 Sita Switching Center, Rajdamri Arcade, 1973
1.4 S31 Hotel	6.4 The FAH 6.5 The Regent Bangkok	10.4 Computer Center At Bank Note Printing Plant, Bank Of Thailand, 1977
1.5 Mandarin Oriental Bangkok (the renovation) 1.6 Le Meridien Bangkok, Surawong	6.5 The Regent Bangkok 6.6 The SAIL Residences, Pattaya	10.3 Sita Switching Center, Rajdamri Arcade, 1973 10.4 Computer Center At Bank Note Printing Plant, Bank Of Thailand, 1977 10.5 Computer Center, Sam Commercial Bank, Chidlom Office 10.6 Computer Center, Krung Thai Bank Head Office
1.7 The Ambassador hotel (the renovation)	6.7 Royal Charoenkrung Tower	10.7 Computer Center 1st Expansion, Stam Commercial Bank, Chidiom
1.8 Holiday Inn Regent Beach Cha-Am	6.8 Ský Beach 6.9 Silom Palace	Office 10.8 Northern Computer Center, Siam Commercial Bank, Chieng Mai
1.9 Holiday Inn Pattaya 1.10 Sheraton Grande Lagoon, Hua Hin	6.10 Silver Beach	10.9 Computer Center 2nd Expansion, Siam Commercial Bank, Chidlom
1 11 Hotel Plaza Athenee	6.11 Lumpini Park View	Office
1.12 Grand Hyatt Erawan Hotel 1.13 Westin Grande Sukhumvit (Renovation) 1.14 J.W. Marriott Hotel 1.15 Baiyoke 2 Sky Hotel	6.12 Park Beach	10.10 Southern Computer Center, Siam Commercial Bank, Had Yai
1.14 J.W. Marriott Hotel	6.13 City Lake Condominium 6.14 La Cascade	10.11 Siamnet Computer Center 10.12 Government Saving Bank Computer Centers at Bangkok, Chiengmai,
1.15 Baiyoke 2 Sky Hotel	6.15 The President Park	Nakornrajsima
1.16 Swissotel (Le Concorde Complex) 1.17 Bangkok Penninsula Hotel (Now : Four Seasons Hotel)	6.16 Sathorn Park Place 6.17 Dusit Resort, Hua Hin	10.13 ESSO's Computer Center (new), Bangkok 10.14 Renovations of UPS for Siam Commercial Bank Computer Center
1.18 The Fisherman's Village 1.19 Choeningmon Resort, Samui 1.20 Metropole Hotel, Phuket 1.21 Dusit Resort Hotel & Polo Club, Cha-Am	6.18 Metro Jomthien Condotel	10.15 Data Center, Thai Airways International
1.19 Choenmgmon Resort, Samui	6.19 Tridhos City Marina 6.20 Bangkok River Park Condominium	HEALTH CARES
1.21 Dusit Resort Hotel & Polo Club, Cha-Am	6.21 Thana City	11.1 Srinakarin Hospital (Srinakarin University)
1.22 Chiangmai Holiday Inn (Green Hill) Hotel 1.23 Twin Lotus Hotel, Nakorn Srithamarat	6.21 Thana City 6.22 Apartment Sukhumvit 33 6.23 HuaHin Sea-View Paradise	11.2 Ratnin Eye Hospital
1.23 I WIN Lotus Hotel, Nakorn Srithamarat 1.24 Kempinski Hotel	6.23 HuaHin Sea-View Paradise 6.24 Bann Monchale, Cha-Am	11.3 Khon Kaen Hospital
1.24 Kempinski Hotel 1.25 Movenpic Hotel 1.26 Siam City Hotel 1.27 Swiss Garden Hotel	6.25 Sathorn Garden	11.4 Buayai Hospital 11.5 Siriraj Hospital, Anantamahidhol Building
1.26 Siam City Hotel	6.26 The Elephant Building, Ratchayothin	11.6 Bumrungraj Hospital, Main Power Distribution (Renovation)11.7 Khelangnakorn Hospital, Lampang
1.27 Swiss Garden Hotel 1.28 Bangkok Twin Tower Hotel	6.27 Central City Bangna (East Tower) 6.28 Coconut Beach Condominium, Pattaya	11.7 Khelanghakorn Hospital, Lampang 11.8 Kalasin Hospital
1.29 Bann Boran Chiangrai Hotel 1.30 Laguna Beach Club Resort		
1.30 Laguna Beach Club Resort	RETAILS 7.1 Central Plaza Chiang-Rai	PORTS 12.1 Sriracha Habour
1.31 Siam Ballroom Phase 2 (Siam Intercontinental Hotel) 1.32 Royal Chieng Mai Hotel And Golf Club	7.2 Central Plaza Pinklao (the renovation)	12.2 Maptaphut Port
1.33 Independence Hotel, Kampongsom, Cambodia (Renovation)	7.3 The Vue, Charoen Nakorn 7.4 The Rain Hill sukhumvit 47	12.3 Phuket Deep Sea Port
1.34 Little Duck Hotel, Chiangrai	7.4 The Rain Hill sukhumvit 47	12.4 Songkla Deep Sea Port 12.5 Donmuang Airport (Air-Bridge Terminals)
OFFICES	7.5 Nikorn Thani 7.6 Porto Chino Community mall	12.5 Dominuang Airport (Air-Bridge Terminais)
	7.6 Porto Chino Community mall 7.7 Digital Gateway, Siam Square (Independent Checker) 7.8 BIG C Super Center	MASTER PLAN, INFRASTRUCTURE PROJECT
2.2 The Elephant Building, Ratchayothin	7.8 BIG C Super Center 7.8.1 Thanyaburi Branch	13.1 Mass Rapid Transport Authority (MRTA) (CSC I)
2.4 Siripinyo Buildina	7.8.2 Mahachai Branch	13.2 Mae-Fah Luang University, Chiang-Rai 13.3 The Master Plan For National Housing Authority, Din-Daeng Site
2.1 The Elephant Building, Ratchayothin 2.2 The Elephant Building, Ratchayothin 2.3 United Center Tower 2.4 Siripinyo Building 2.5 S.S.P. Building 2.6 C.T.I. Tower 2.7 Malegapon Tower Rama IV (including production house of channel 3	7.8.3 Loomsak Branch	13.4 Muang Thong Thani, Infrastructure 13.5 Telephone Organization Of Thailand, Ploenchit Office 13.6 State Railway Of Thailand
2.6 C.T.I. Tower 2.7 Maleenon Tower, Rama IV (including production house of channel 3	7.8.4 Ta-ma-ka, Kanjanaburi Branch 7.8.5 Rajapruk Branch	13.5 Telephone Organization Of Thailand, Ploenchit Office
television)	7.8.6 Thepkasastree	13.6.1 Paholyothin Site
2.8 Le Concorde Office Tower 2.9 Wall Street Tower	7.8.6 Thepkasastree 7.9 Central Town Center (Rattanathibet Phase II)	13.6.2 Makkasan Site
2.9 Wall Street Tower	7.10 the Erawan Bangkok	13.7 The Government House
2.11 Beauty Gems Tower	7.11 Central Department Store, Hua-Mark 7.12 Robinson Department Store, Donmuang	LABORATORY
2.10 Srijulsup Tower 2.11 Beauty Gems Tower 2.12 Ural Building 2.13 Silpathai Building	7.13 Ploenchit Center 7.14 Laksi Plaza	14.1 Siriraj Hospital, IT Studies and Laboratory for Medical studies
2.13 Silpatnai Building 2.14 The Nation Tower I. II	7.14 Laksi Piaza 7.15 Bangrak Plaza	14.2 Khon Kaen University Laboratory for Medical studies
2.14 The Nation Tower I, II 2.15 Thai Life Insurance Building, Rattanatibet	7.16 Silom Complex	OTHER PROJECTS
2.16 Muang Thong Thani Project (Villa Office)	7.17 Amarin Plaza	15.1 Community Market, Phnom Penh, Cambodia (Soraya Market)
2.17 The Malaysian Embassy 2.18 The Privy Council Office	7.18 Cathay Department Store, Bang Kae 7.19 Ratchadumri Arcade	15.2 New Office, Storage and Garage of ESSO Standard Thailand Limited, Bangkok
	7.20 Ploenchit Arcade	15.3 ESSO's Chongnonsri Terminal Security System And Command
CORPORATE OFFICES 2.1 Stock Evolution of Theiland (New Headquarters)	EDUCATION	Center 15.4 Multi-Credit Corporation of Thailand Company Limited (Kanchanatat
3.1 Stock Exchange of Thailand (New Headquarters) 3.2 Thai Airways International Building, Head Office 3.3 Bank of Asia Head Office, Robot Building 3.4 Siam Commercial Bank (S.C.B.), Chidlom Office 3.5 Siam Commercial Bank (S.C.B.), Phase III, Ratchayothin 3.6 Shell Building, Head Office 3.7 Lean Tower, Thai Airways International 3.8 Samagon Insurance Tower	8.1 IT and Laboratory Studies for medical student, Sirirai Hospital	Building Branch)
3.3 Bank of Asia Head Office, Robot Building	8.2 Laboratories Study and Bio Safety research facilities, Khon Kaen	15.5 Thammasat Gymnasium, The 13th Asian Game
3.4 Siam Commercial Bank (S.C.B.), Chidlom Office	University 8.3 Thanmasat Gymnasium. The 13th Asian Game Project	15.6 Mae-Ping Convention (Imperial Mae-Ping Hotel)
3.6 Shell Building, Head Office	8.4 Thammasat Multipurpose Building II, Bangkok	ENERGY CONSERVATION PROJECT
3.7 Lean Tower, Thai Airways International	8.5 Medical Study building for Dentist, Khon Kaen University	16.1 Hawaii Tower, Bangkok
3.8 Samaggi Insurance Tower 3.9 Krung Thai Bank, Head Office 3.10 LF.C.T. Buildings	8.6 Bangkok University art ganery and munipurpose building	16.2 TOT services center, Maptapud, Rayong 16.3 Song Phunburi Hotel, Suphanburi
3.10 I.F.C.T. Buildings	8.8 Khon Kaen University, Exhibition And Conference Building	16.4 Petcharat Hospital, Petchburi
3.11 ESSO Building	3. Thammasat Gymnasium, The 13th Asian Game Project 3.4 Thammasat Multipurpose Building II, Bangkok 3.5 Medical Study building for Dentist, Khorn Kaen University 3.6 Bangkok University art gallery and multipurpose building 3.7 Mae-Fah Luang University, Chilang-Rai 3.8 Khon Kaen University, Exhibition And Conference Building 3.9 Thammasat Central Library, Bangkok 3.0 1.1 Lecture Pultipul Library 4.0 1.1 Lecture Pultipul Library 5.0 1.1 Lecture Pultipul Libra	16.5 Saovaluk Thani Hotel, Surat Thani
COMPLEXES	8.9.1 Lecture Building I 8.9.2 Lecture Building II	16.6 Rajabhat Burirum, Burirum 16.7 Amarin Plaza,Bangkok
4.1 Jewelry Trade Center	8.9.3 Lecture Building III	16.8 Sukhumvit Hospital
4.2 Silom Complex 4.3 Royal Charoenkrung Tower	8.9.4 Lecture Building IV 8.9.5 Faculty of Engineering Building (Int.)	16.9 AP National, Samut Prakarn 16.10 Samaggi Insurance, Bangkok
4.4 Central City Bangna (East Tower)	8.9.6 Library Building	16.11 Laksi Plaza, Bangkok
4.5 Ploenchit Center	8.9.7 Laboratories	16.12 Riverside Hotel, Bangkok
4.6 Siam Commercial Complex (S.C.B.) Phase III 4.7 Amarin Plaza	8.9.8 Multi – Purpose Building 8.10 Na-Ray Suan University, Pichit	16.13 Saint John University, Bangkok 16.14 Saint John Polytechnic, Bangkok
4.8 Gems Tower		16.15 Saint John School, Bangkok
4.9 Laksi Plaza	INDUSTRIALS	16.16 Saint John International School, Bangkok
4.10 Le Concorde Complex 4.11 Jomthien Complex	9.1 Yuasa Battery Factory, Gateway Industrial Estate 9.2 Siam Nastech Factory (Extension)	16.17 BB Building, Bangkok 16.18 Pachorn Place, Bangkok
4.12 Bang-Rak Plaza	9.3 Fuji Serina Factory	16.19 Pacific Price Hotel, Chonburi
4.13 Palm Square, Phuket	9.4 Cornel Polymer Factory 9.5 Siamwala Warehouse	16.20 Welcome Jonthien Hotel, Chonburi 16.21 Talay Thong Tower, Chonburi
GOVERNMENT	9.6 Super Gold Factory	16.22 Rom-Po Mansion, Bangkok
5.1 The Parliament Building, the office	9.7 Universal Toy Factory (Match Box)	16.23 Jarun Tower, Bangkok
5.2 Bank Note Printing Plant, Bank of Thailand 5.3 The Ministry Of Foreign Affairs Office, Jaengwattana	9.8 Pranda Jewelry Factory 9.9 Artico Craft Toy Factory	16.24 Bang Pa Kong Royal Country Club, Cha Choeng Sao 16.25 UN-ESCAP building, Bangkok
5.4 Metropolitant Electricity Authority office (MEA), Laksi	9.10 Match Box Factory	
5.5 The United Nation Tower	9.11 American Standard Factory, 2nd Phase	
5.6 Ministry of Fincance Office, Rama VI 5.7 The United Nations, Economic and Social Commission for Asia	9.12 Tai Ping Factory, 2nd Phase 9.13 Coca-Cola Botting Plants (Hua Mak, Pathumthani, Khon Kaen,	
and the Pacific (UN-ESCAP), the renovation	Lampang, Haad Yai)	
5.7.1 Vertical Transportation 5.7.2 HVAC upgrading system	9.14 Bangkok Domtex 9.15 NTS Steelmill	
3.7.2 TIVAC upgrading system	9.16 Bangkok Weaving Mill	
	9.17 Siam Tsuchiya Factory	
	9.18 Cheena Gasket Factory 9.19 Siam Tsuchiya Mfg. Factory, Bangplee	
	orro olam-rodomya imig. raotory, bangpicc	

RESIDENTAL 6.1 Villa Asoke

COMPUTER CENTERS

10.1 North Park Computer 10.2 United National Co





CURRENT PROJECT

- THE LINE RATCHATHEWI, CONDOMINIUM
- THE LINE JATUJAK-MOCHIT, CONDOMINIUM
- the PRODIGY
- · ANGSANA RESIDENCE
- · TAWEE ONE PLACE, Renovation
- THE BASE CONDOMINIUM, Korat
- SERRANO CONDOMINIUM Rama II
- ASCENT CONDOMINIUM
- THE BASE CONDOMINIUM, Thapra
- THE PARK LAND PHETKASEM
- THE IVY AMPIO
- THE ELEMENT CONDOMINIUM
- SUMMIT WINDMILL Redevelopment
- LE MERIDIEN Hotel and Services Apartment
- WORA SUKHUMVIT
- PARK HYATT Hotel and Residences

PAST PROJECT

- VILLA ASOKE
- VERTIQ CONDOMINIUM
- KHAO-YAI RESIDENCE
- MODE SUKHUMVIT 61
- THE AXIS CONDOMINIUM
- URBANO SATHORN
- VIA BOTANI
- PARKLAND PHASE II
- VILLA RACHATEWI
- LA CASCADE
- SKY BEACH CONDOMINIUM
- SILVER BEACH CONDOMINIUM
- LUMPINI PARK VIEW
- ELEPHANT BUILDING
- CITY LAKE CONDOMINIUM
- PARK BEACH CONDOMINIUM
- METRO JOMTIEN CONDOTEL
- BANGKOK RIVER PARK CONDOMINIUM
- SATHORN PARK PLACE
- JOMTIEN COMPLEX
- SATHORN GARDEN
- ROYAL CHAROENKRUNG
- CENTRAL CITY BANGNA

(Days Inn Hotel, East Tower Condominium)

- PRESIDENT PARK
- TRIDHOS CITY MARINA
- COCONUT BEACH CONDOMINIUM
- BANN MON-CHALE
- THANA CITY

Residential



Project Title THE LINE RATCHATHEWI, CONDOMINIUM

Location New Petchburi Road, Bangkok Thailand

Sansiri Plc. Owner Commissioned 2014-2016

Project Summary High-rise Condominium, 38+ storeys., 250 units. Construction area

is estimated at 28,000 sq.m.

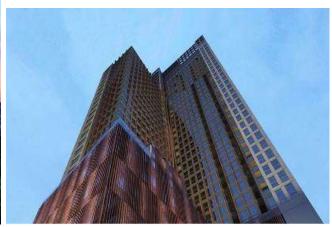
Construction Cost Estimated at 650 million baht

M&E System Design: Air-conditioning, Ventilating, Electrical Power, Lighting, Telecommunication, Fire Alarm, CCTV, Fire Fighting, Waste Firm's Role

water treatment, Hot water, Storm Drainage, Security,

Elevators.

Civil and Structural design



CURRENT PROJECTS

Residential



Location Jatujak, Bangkok Thailand

Owner Sansiri Plc. Commissioned 2014-2016

Project Summary High-rise Condominium, 40+ storeys., 870 units.

Construction area is estimated at 60,000 sq.m. Estimated at 1,350 million baht

Construction Cost

M&E System Design: Air-conditioning, Ventilating, Electrical Power, Firm's Role

Lighting, Telecommunication, Fire Alarm, CCTV, Fire Fighting, Waste water treatment, Hot water, Recycle Water, Swimming Pool Storm

Drainage, Security, Elevators.







Residential



Project Title : the PRODIGY

Location : Petchakasem 62,Thailand Owner : GDT Property co.,Ltd.

Commissioned : 2014-2016

Project Summary : A high rise condominium buildings (33 floors) with Construction

area estimated at 73,275 sq. m..

Construction Cost : Estimated at 1,100 million baht

Firm's Role : M&E System Design: Air-conditioning, Ventilating, Electrical Power,

Lighting, Telecommunication, Fire Alarm, CCTV, Fire Fighting, Waste water treatment, Hot water, Swimming Pool, Storm Drainage,

Security, Elevators.

Civil and Structural design



Residential



Project Title : THE BASE CONDOMINIUM, Korat

Location : Korat, Thailand
Owner : Piwattana Co., Ltd.
Commissioned : 2013-2015

Project Summary : Construction area est. 90,000 sq.m.

Building A: 52,000 sq.m.,20-stories Building B: 40,000 sq.m., 20 –stories

Construction Cost : 1,300 Million Baht

Firm's Role : M&E System Design: Air-conditioning, Ventilating,

Electrical Power, Lighting, Telecommunication, Fire Alarm,

Access Control, CCTV, Fire Fighting, Waste water treatment,

Recycle water, Irrigation, Security System





Project Title : THE BASE CONDOMINIUM

Location : Ratchada-Thapra
Owner : Anawat Co., Ltd.
Commissioned : 2012-2014

Project Summary : Construction area est. 98,000 sq.m., 40-storey high rise bldg.

Construction Cost: 1,300 Million Baht

Firm's Role : M&E System Design: Air-conditioning, Ventilating,

Electrical Power, Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment,

Recycle water, Irrigation, Security System

Residential



Project Title : ANGSANA RESIDENCE

Location : Phuket, Thailand Owner : Laguna Grande Limited.

Commissioned : 2014-2015

Project Summary : Condominium buildings with Construction area estimated at 9,946

sq. m. The Condominium is a part of Laguna Property.

Construction Cost : Estimated at 350 million baht

Firm's Role : M&E System Design: Air-conditioning, Ventilating, Electrical Power,

Lighting, Telecommunication, Fire Alarm, CCTV, Fighting, Waste water treatment, Hot water, Storm Drainage, BMS, Security,

Elevators.

Civil and Structural design



Project Title : TAWEE ONE PLACE RENOVATION PROJECT

Location : Sukhumvit 33, Bangkok
Owner : Anektawee co.,Ltd.
Commissioned : -

Project Summary : Apartment 12 storey
Construction Cost : 40 millions Baht (M&E only)

Firm's Role : M&E System Design: Air-conditioning, Ventilating,

Electrical Power, Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment,

Recycle water, Irrigation, Security System

Residential





Project Title **SERRANO CONDOMINIUM**

Location Rama II, Bangkok

Owner

Commissioned 2012-2014

Phase I with 2 buildings and construction area est. 38,880 sq.m. Project Summary Phase II with 2 buildings and construction area est. 18,000 sq.m.

Construction Cost:

Firm's Role

M&E System Design: Air-conditioning, Ventilating, Electrical Power, Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment, Recycle water, Irrigation,

Pool Support, Security System, Vertical Transportation.

Project Title THE PARKLAND PHETKASEM

Location Phetkasem, Bangkok Owner Narai Property Co., Ltd.

Commissioned

Project Summary Construction area est. 58,164 sq.m

Construction Cost: 2012-2015

M&E System Design: Air-conditioning, Ventilating, Electrical Power, Firm's Role

Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment, Recycle water, Irrigation,

Pool Support, Security System, Vertical Transportation.

Residential



Project Title : THE IVY AMPIO

Location : Ratchada Rd., Bangkok Owner : Prukasa Real Estate Pcl.

Commissioned : 2010

Project Summary : Condominium 29-storey

Construction Cost: -

Firm's Role : M&E System Design: Air-conditioning, Ventilating, Electrical Power,

Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment, Recycle water, Irrigation,

Pool Support, Security System, Vertical Transportation.

Project Title : URBANO SATHORN

Location : Sathorn Rd., Bangkok
Owner : Prukasa Real Estate Pcl.

Commissioned : 2010

Project Summary : Condominium 40-storey high, 50,000 sq.m.

Construction Cost:

Firm's Role : M&E System Design: Air-conditioning, Ventilating, Electrical Power,

Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment, Recycle water, Irrigation,

Pool Support, Security System, Vertical Transportation.



Residential



Project Title : VILLA ASOKE

Location : New Petchburi Rd., Bangkok

Owner : TCC Capital Land

Commissioned : 2008-2013
Project Summary : 40-storey high rise condominium with 45,000 sq.m.

Construction Cost: 1,100 millions Baht

Firm's Role : M&E System Design: Air-conditioning, Ventilating, Plumbing,

Sanitary, Electrical Power, Lighting, Telecommunication, Fire Fighting, Vertical Transportation, Wastewater Treatment CCTV.

Fire Alarm and Fire Protections System.



Location : Samyan, Bangkok
Owner : Siamnuwat Co., Ltd.

Commissioned : 2009-2013

Project Summary : Condominium 23-storey

Construction Cost: 600 millions Bhat

Firm's Role : M&E System Design: Air-conditioning, Ventilating,

Electrical Power, Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment, Recycle water, I rrigation, Pool Support, Security System,

Vertical Transportation.





Residential



Project Title : INTRO BY RASA CONDOMINIUM

Location : Pradiphat Rd., Bangkok

Owner : Rasa Property Development Public Co., Ltd.

Commissioned : 2007

Project Summary : a 35-stoteys of Condominium and 5-storeys of car park building.

Construction Cost : est. 30 millions USD

Firm's Role : M&E System Design: Air-conditioning, Ventilating, Electrical Power,

Lighting, Telecommunication, Fire Alarm, CCTV, Access Control,

Fire Fighting, Waste water treatment, Storm Drainage, Pool Support, Security System and Vertical Transportation.



Location : Chengwattana Rd., Bangkok

Owner : - Commissioned : -

Project Summary : Condominium 45-storey,

Land area 3-0-28 rais

Construction Cost:

Firm's Role : M&E System Design: Air-conditioning, Ventilating,

Electrical Power, Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment, Recycle water, Irrigation, Pool Support, Security System,

Vertical Transportation.



Residential



Project Title : THE AXIS CONDOMINIUM

Location : Pattaya, Chonburi

Owner : -

Commissioned : 2009-2013

Project Summary : 50,000 sq.m. Condominium Construction Cost : est. 900 million baht

Firm's Role : M&E System Design: Air-conditioning, Ventilating,

Electrical Power, Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment,

,Irrigation, Pool Support, Security System,

Vertical Transportation.



Project Title : WORA SUKHUMVIT

Location : Sukhumvit 49, Bangkok

Owner : W Property Commissioned : 2010

Project Summary : Condominium 8- storey

Construction Cost : -

Firm's Role : M&E System Design: Air-conditioning, Ventilating,

Electrical Power, Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment,

Recycle water, Irrigation, Security System

Residential



Project Title SAMARNCHANT CONDOMINIUM

Location Sukhumvit Rd., Bangkok Owner Daika Estate Co., Ltd.

Commissioned

Project Summary 8-storey Condominium with 2 Basement

Construction Cost: 150 Million Baht

M&E System Design: Air-conditioning, Ventilating, Electrical Power, Firm's Role

Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment, Recycle water, Irrigation,

Pool Support, Security System, Vertical Transportation.



Project Title ASCENT CONDOMINIUM

Eakamai Rd., Bangkok Location

Owner

2012

Commissioned

Project Summary Construction Cost:

Construction area est. 6,300 sq.m. with 8-storey building

est. 630 million baht

Firm's Role

M&E System Design: Air-conditioning, Ventilating, Electrical Power, Lighting, Telecommunication, Fire Alarm, Access Control, CCTV,

Fire Fighting, Waste water treatment, Recycle water, Irrigation,

Pool Support, Security System, Vertical Transportation.



Residential



Project Title : MODE SUKHUMVIT 61

Location : Sukhumvit Rd., Bangkok Owner : Gaysorn Property Co., Ltd.

Commissioned : 2010

Project Summary : 2 Condominium with 8-storey high

Construction Cost : -

Firm's Role : M&E System Design: Air-conditioning, Ventilating, Electrical Power,

Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment, Recycle water, Irrigation,

Pool Support, Security System, Vertical Transportation.



Project Title : VIA BOTANI

Location : Sukhumvit 47, Bangkok
Owner : SANSIRI Public Co., Ltd.

Commissioned : 2011-2013

Project Summary : Condominium 8-storey high,

CFA 10-12,000 sq.m.

Construction Cost: 450 million Baht

Firm's Role : M&E System Design: Air-conditioning, Ventilating, Electrical Power,

Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment, Recycle water, Irrigation,

Pool Support, Security System, Vertical Transportation.





Project Title : VILLA RACHATEWI

Location : Phayathai Road, Bangkok

Owner : TCC Capital Land

Commissioned : 2008

RACHATEWI

Project Summary : 80,000 sq.m. - Condo 603 rooms, Services Apartment 225 rooms

Construction Cost : est. 54 millions USD

Firm's Role : M&E System Design: Air-conditioning, Ventilating, Plumbing,

Sanitary, Electrical Power, Lighting, Telecommunication, CCTV,

Fire Alarm and Fire Protections System.

Project Title : ROYAL CHAROENKRUNG

Location : Silom Road, Bangkok.
Owner : Royal Charoenkrung Co., Ltd.

Commissioned : To be completed 1996

Project Summary : Site Area: 235,000 Sq.m., 63-Stories Building.
Firm's Role : M&E System Design: Air-conditioning, Ventilating, Electrical Power, Lighting, Telecommunication,

Electrical Power, Lighting, Telecommunication, Fire Alarm and Vertical Transportation System.

Residential



Project Title THE FAH

Location Soi Aree, Bangkok

Supreme Estate Development Co., Ltd. Owner

Commissioned

Project Summary Condominium

Construction Cost

Firm's Role M&E System Design: Air-conditioning,

> Ventilating, Electrical Power, Lighting, Telecommunication, Fire Alarm,

Building Management, CCTV, Gas piping, Hot water generation, Fire Fighting, Waste water treatment, Recycle water, Irrigation

Pool Support and Security System.



Project Title ELEPHANT BUILDING

Phaholyothin Road, Bangkok. Location Owner Thammathani Co., Ltd.

Commissioned 1996

Site Area: 130,000 Sq.m., Two 31-Stories Office **Project Summary**

Tower, 31-Stories Condominium.

Firm's Role M&E System Design: Air-conditioning,

> Ventilating, Electrical Power, Lighting, Telecommunication, Fire Alarm, Security, CCTV, Vertical Transportation, Plumbing and

Sanitary System.

Residential



Project Title : SKY BEACH CONDOMINIUM

Location : Pattaya, Chonburi.

Owner : -

Commissioned : 1994

Project Summary : 44 -Storey Condominium Tower
Firm's Role : M&E System Design: Electrical Power,

Lighting, Telecommunication, Fire Alarm, and Vertical Transportation System.



Location : Pattaya, Chonburi.

Owner : -

Commissioned : 1992

Project Summary : 25-Storey Condominium Tower.
Firm's Role : M&E System Design: Electrical Power,

Lighting, Telecommunication, Fire Alarm, and Vertical Transportation System.





Residential







Project Title : LUMPINI PARK VIEW

Location : Rama IV Road, Bangkok.
Owner : Thospol Land Co.,Ltd.
Commissioned : 1997

Project Summary : 32-Storey Condominium.

Firm's Role : M&E System Design: Air-conditioning, Ventilating,

Electrical Power, Lighting, Telecommunication, Fire Alarm, Security, CCTV, Vertical Transportation,

Plumbing and Sanitary System.

Project Title : CITY LAKE CONDOMINIUM

Location : Ratchadaphisek Road, Bangkok.

Owner : -

Commissioned : 1993

Project Summary : 25-Stories Condominium Building

Firm's Role : M&E System Design: Air-conditioning, Ventilating,

Electrical Power, Lighting, Telecommunication, Fire Alarm,

Security, CCTV, Vertical Transportation, Plumbing,

Fire Fighting and Sanitary System

Project Title : LA CASCADE

Location : Ekamai Road,Bangkok.
Owner : La Cascade Co.,Ltd.

Commissioned : 1993

Project Summary : 20-Storey Condominium.

Firm's Role : M&E System Design: Electrical Power, Lighting,

Telecommunication, Fire Alarm, and Vertical Transportation System.



Project Title : PARK BEACH CONDOMINIUM

Location : Pattaya, Chonburi.

Owner

Firm's Role

1993

Commissioned Project Summary

: 19

40-Storey Condominium Tower

: M&E System Design: Electrical Power,

Lighting, Telecommunication, Fire Alarm, and Vertical Transportation System.

Project Title : METRO JOMTIEN CONDOTEL

Location : Pattaya, Chonburi. Owner : Metro Machinery.

Commissioned : 1993

Project Summary : 44-Storey Condominium Tower and

Low Rise Condominium.

Firm's Role : M&E System Design: Air-conditioning, Ventiliating,

Electrical Power, Lighting, Telecommunication, Fire Alarm,

Vertical Transportation, Plumbing, and Sanitary System.



Residential



Project Title BANGKOK RIVER PARKS

Chao-Praya River Location

Owner

1992 Commissioned

Project Summary 34-Stories Condominium Tower

Firm's Role M&E System Design: Electrical Power,

Lighting, Telecommunication, Fire Alarm and Vertical Transportation System.



Project Title SATHORN PARK PLACE

South Sathorn, Bangkok. Location

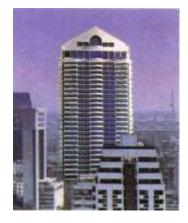
Central Group Owner

Commissioned 1994

Project Summary

Firm's Role

M&E System Design: Air-conditioning, Ventilating, Electrical Power, Lighting, Telecommunication, Fire Alarm, Fire Protection, Plumbing, Wastewater Treatment and Vertical Transportation System.



Residential



Project Title : JOMTIEN COMPLEX

Location : Pattaya, Chonburi.

Owner :

Commissioned: 1993

Project Summary : Two 30-Stories Condominium Tower and Shopping Arcade.

Firm's Role : M&E System Design: Electrical Power, Lighting, Telecommunication, Fire Alarm

and Vertical Transportation System.



Location : Sathorn Road, Bangkok.
Owner : Malaysian Embassy.

Commissioned : 1997

Project Summary : Site Area: 136,000 Sq.m., Two-Tower,

42-Stories Condominium, and Malaysian Embassy.

Firm's Role : M&E System Design:

M&E System Design: Air-conditioning and Ventilating System.



Residential



Project Title : PRESIDENT PARK

Location : Sukhumvit 24, Bangkok.

Owner : The Royal Sukhumvit Garden Co.,Ltd.

Commissioned : 1993

Project Summary : Five Residential Towers, Fitness Club, and Restaurants.

Firm's Role : M&E System Design: Air-conditioning, Ventilating, Electrical Power,

Lighting, Telecommunication, Fire Alarm, and Security System.



Project Title : TRIDHOS CITY MARINA

Location : Charoen Nakorn Road, Bangkok.

Owner : Tridhos Co.,Ltd.

Commissioned : 1992

Project Summary : Tower1:31 Floors

Tower2 : 26 Floors Tower3 : 21 Floors

Firm's Role : M&E System Design: Air-conditioning, Ventilating, Electrical Power,

Lighting, Telecommunication, and Fire Alarm System.

Residential



Project Title : COCONUT BEACH CONDOMINIUM

Location : Pattaya, Cholburi.

Owner : -

Commissioned : 1992

Project Summary : Site Area:10,000 Sq.m., 18-Stories Condominium Building.

Firm's Role : M&E System Design: Air-Conditioning, Ventilating,

Electrical Power, Lighting, Telecommunication, Fire Alarm, Plumbing and Sanitary System.



Project Title : BANN MON-CHALE

Location : Petchaburi Owner : Central Group

Commissioned : 1997

Firm's Role : M&E System Design: Air-Conditioning,

Ventilating, Electrical Power, Lighting,

Telecommunication, Fire Alarm, Fire Fighting,

Waste water treatment, Plumbing and Sanitary System.



Residential







Project Title : PARKLAND PHASE II

Location : Srinakarin Rd., Bangkok

Owner : Naraya Co., Ltd.

Commissioned : Project Summary : Condominium 3 Buildings; composed

19-storeys high rise, 2 buildings

• 11-storeys high rise, 1 building

Construction Cost:

Firm's Role : M&E System Design: Air-conditioning, Ventilating,

Electrical Power, Lighting, Telecommunication, Fire Alarm, Access Control, CCTV, Fire Fighting, Waste water treatment, Recycle water, Irrigation, Pool Support, Security System,

Vertical Transportation.

Project Title : CENTRAL CITY

Days Inn Hotel, East Tower Condominium

Location : Bangna Trad Highway Owner : Central Pattana

Commissioned : 1994

Firm's Role : M&E System Design: Air-Conditioning, Ventilating,

Electrical Power, Lighting, Telecommunication, Fire Alarm,

Plumbing and Sanitary System.

Project Title : THANA CITY

Location : Bangna-Trad Road, Smuthprakarn.

Owner : Thana City Co.,Ltd.

Commissioned : 1993

Project Summary : Six Tower Residential Condominiums.

Firm's Role : M&E System Design: Electrical Power, Lighting,

Telecommunication, Fire Alarm, CCTV,

Vertical Transportation, Plumbing, and Sanitary System.





PAST EXPERIENCE



W. RETREAT, SAMUI - M,E,P -



INTERCONTINENTAL HUA HIN - M,E,P-



BANYAN TREE, SAMUI - M,E,P -





SHERATON GRANDE LAGOON HUA HIN $_{\text{-M,E,P}}\text{-}$





LAGUNA BEACH RESORT (Part of LAGUNA Phuket) - M,E,P-

PAST EXPERIENCE



DOUBLE TREE by HILTON M,E,P



MODE SATHORN HOTEL M,E,P



HILTON SUKHUMVIT BANGKOK M,E,P



MARIOTT RAYONG M,E,P





BAIYOKE SKY HOTEL Currently the tallest building in Thailand - M.E.P.



GRAND HYATT ERAWAN HOTEL - M,E -



I HOTEL TWIN LOTUS HOTEL
- M,E-P-



HOLIDAY INN CHIANG MAI



WESTIN GRANDE SUKHUMVIT



SIAM CITY HOTEL - M,E -



INDEPENDENCE HOTEL CAMBODIA
- M,E,P-



FOUR SEASONS HOTEL - M,E-



J.W. MARRIOTT HOTEL (Ploenchit Center)



SOL TWIN TOWERS - M,E -



METROPOLE HOTEL, PHUKET - M,E,P-



MANDARIN ORIENTAL The Renovation Back of House, Main Lobby



HOLIDAY INN PATTAYA



S31 HOTEL - M,E,P -



HOTEL PLAZA ATHENEE



LE MERIDIEN BANGKOK - M,E,P -



MERCURE AMBASSADOR HOTEL (Renovation)



SHERATON GRAND LAGOON (Rebranded to ANGSANA)



HOLIDAY INN REGENT BEACH CHA-AM (Renovation)





SALA-SAMUI RESORTS - M,E,P-



FISHERMAN'S VILLAGE

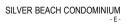


DUSIT AND RESORT HOTEL



(ANANTARA GOLDEN TRIANGLE)







CITY LAKE CONDOMINIUM - M,E -



LA CASCADE



SATHORN GARDEN



ROYAL CHAROENKRUNG



LUMPINI PARK VIEW



PARK BEACH CONDOMINIUM - E -



SKY BEACH CONDOMINIUM



JOMTIEN COMPLEX





CENTRAL BANGNA (East Tower) COCONUT BEACH CONDOMINIUM - M,E,P-



THE PRESIDENT PARK - M,E -







TRIDHOS CITY MARINA - M,E,P-



INTRO BY RASA Condominium



BANGKOK RIVER PARK



VILLA RACHATEWI - M,E,P -



METRO JOMTIEN CONDOTEL



PARKLAND PHASE II - M,E,P -



THANA CITY



BAAN MON-CHALE - M,E,P-







VIA BOTANI -M,E,P-



MODE SUKHUMVIT 61 -M,E,P-





THE AXIS CONDOMINIUM -M,E,P-



KHAO-YAI RESIDENCE
-M,E,PM = Mechanical E = Electrical P = Plumbing



URBANO SATHORN -M,E,P-

Offices







ESSO BUILDING



GRAND AMARIN TOWER
- M,E,P -



UNITED CENTER



C.T.I TOWER



JEWELRY TRADE CENTER - M,E,P-



S.S.P TOWER III



SRIJULSUP TOWER



THE NATION TOWER I, II



SIRIPINYO BUILDING - M,E -



WALL STREET TOWER - M,E-



GEMS TOWER . M,E,P -

Offices







BEAUTY GEMS BUILDING - M,E-



VILLA OFFICE - M,E,P -



MALAYSIAN EMBASSY



THAI LIFE INSURANCE



MINISTRY OF FINANACE



MINISRTY OF FOREIGN AFFAIR



UNITED NATION - ESCAP - M,E -



BANK NOTE PRINTING - M,E-



METROPOLITANT ELECTRICITY AUTHORITY, BANGKHAEN



PRIVY COUNCIL OFFICE



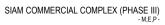
LECONCORDE COMPLEX - M,E,P-



PARLIAMENT BUILDIG (OFFICE)

Corporate Offices







SIAM COMMERCIAL BANK (Old Head Quarter)



THAI AIRWAY INTERNATIONAL (Head Quarter)



SHELL HEAD OFFICE - M -



SAMAGGI TOWER
- M,E,P-



BANK OF ASIA (Head Quarter)



KRUNGTHAI BANK (Head Quarter)



IFCT BUILDING - M,E -



CENTRAL PLAZA CHIANG-RAI



ASIATIQUE the river front - M,E,P-



RAIN HILL - M,E,P -



THE VUE



PORTO CHINO - M,E,P -



BIG C Super Center



CENTRAL TOWN CENTER RATTANATHIBET
- M,E,P-



CENTRAL PLAZA SURATTHANI - M,E,P-



CENTRAL PLAZA PINKLAO (The Renovation)

- M.E.P.

M = Mechanical E = Electrical P = Plumbing

Retails







BANGRAK PLAZA



THE ERAWAN BANGKOK - M,E,P -



SILOM COMPLEX - E,P -



RAJADAMRI ARCADE - M,E -



SORAYA SHOPPING, PHNOM PENH - M,E,P-



GOLDEN CITY SHOPPING CENTER PHNOM PENH



LAKSI PLAZA - M,E -

Health Cares







SRINAKARIN HOSPITAL -M,E,P-

KHONKAEN HOSPITAL -M,E,P-

BUA YAI HOSPITAL -M,E,P-



RATNIN EYE HOSPITAL -M,E,P-



KALASIN HOSPITAL -M,E,P-



BLOOD CENTER THAI RED CROSS SOCIETY -M,E,P-



SIRIRAJ HOSPITAL Laboratory and IT studies for medical student -M,E,P-

PAST EXPERIENCE

Health Cares



PATANA MEDICAL CENTER
-M,E,P-



SONGKLANAKARIN HOSPITAL -M,E,P-

PAST EXPERIENCE



Educations / Gym / Master plan



THAMMASAT UNIVERSITY (Rangsit Campus)

- Main Admission Office Building
- Lecture Building I
- Lecture Building III
- Lecture Building IV
- Faculty of Engineering Building (Int.)
- Library Building (Bangkok campus)
- Laboratories
- Multi-Purpose Building (Bangkok campus)



MAEFAH-LUANG UNIVERSITY Education Buildings - M,E,P-



AUDITORIUM Khon Khaen University



THAMMASAT UNIVERSITY LIBRARY



BANGKOK UNIVERSITY ART GALLERY
- M,E,P-



Makkasan Site

STATE RAILWAY OF THAILAND The Master Plan for Land Use



GYMNESIUM, 13th ASIAN GAME



HUAMARK STADIUM