

TEAM Consulting Engineering and Management Public Company Limited



# INTEGRATING Knowledge





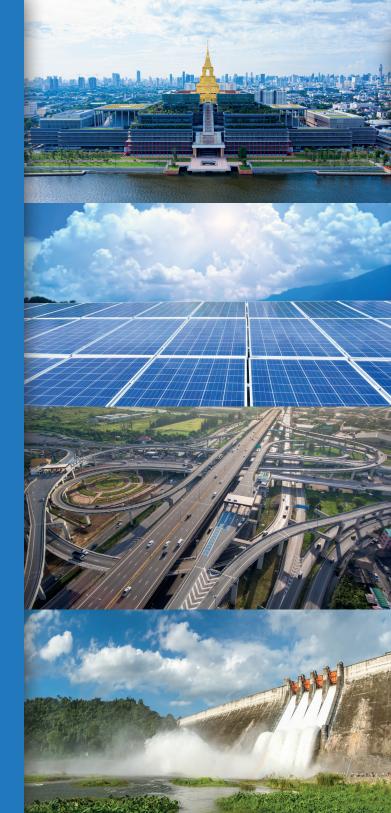


and **Experience** to Drive Sustainable Development

For over 45 years since its establishment, TEAM GROUP has grown into a leading national and regional engineering consulting group in line with its vision: A Regional Solution Provider and Innovative Business Developer. TEAM GROUP's services encompass transportation and logistics, water resources, building and infrastructure, environmental management, energy, and related businesses such as project investment and development in various sectors: water resources, energy efficiency enhancement, renewable energy, solar rooftop, GHG validation and verification services, dam behavior investigation, inspection and installation of geotechnical instruments, Engineering Procurement Contract (EPC), aerial photograph and mapping (drone-based survey), Building Information Modeling (BIM) for architecture, engineering and construction, and asset management using the digital twin technology, training, etc.

With our professional approach focusing on service, quality and teamwork and provision of total solutions for clients, our accomplishments include more than 3,100 projects at national and regional levels.

Embracing ISO 9001:2015 standard, TEAM GROUP has implemented efficient management system in line with international standards, emphasizing continuous development of service quality for optimal client satisfaction, and upholding its leading position in the consulting business and related businesses. This evidently manifests our strong commitment and capabilities to respond to the client requirements.



# Team Spirit

Our seven affiliates and over 1,500 talented professionals in Thailand and overseas enable TEAM GROUP to deliver one-stop integrated service solutions for optimum efficiency and cost-effectiveness.



TEAM-SQ Co., Ltd. (SQ)

commercial buildings, office buildings, condominiums, resorts, hospitals, warehouses, factories, showrooms,

service centers, and infrastructure.

Planning and design of building architecture, interior design, landscape architecture, and design for urban development.



**Vision:** A Regional Solution Provider and Innovative Business Developer

### Total Solution Services

TEAM GROUP provides integrated consulting services in engineering and environmental fields and related businesses, enabling the provision of efficient one-stop services by quality teamwork. The services range from project master planning, feasibility study, survey, detailed design, and environmental study and analysis, project management and construction supervision, operation and maintenance, to independent engineer services for large-scale projects for both public and private sectors.

Moreover, we provide engineering services in related businesses, harnessing new innovations to enhance work efficiency and environmental friendliness, namely aerial photograph and mapping (drone-based survey), Building Information Modeling (BIM) for architecture, engineering and construction, asset management using the digital twin technology, and installation of instruments and supporting equipment. Service sectors include transportation and logistics, water resources, building and infrastructure, environmental management, energy, and related businesses, such as project investment and development in water resources, energy efficiency enhancement, renewable energy, solar rooftop, GHG validation and verification services, dam behavior investigation, inspection and installation of geotechnical instruments, Engineering Procurement Contract (EPC), etc.



### **Transportation**

TEAM GROUP involves in the development of all modes of transport – road, rail, mass rapid transit systems, airports, and seaports – by delivering services from master planning, study-design, to project management and construction supervision, both in Thailand and ASEAN region. In addition, we have expertise and experience in mass rapid transit system and traffic management which are essential for urban areas.

### Service Areas

- Mass rapid transit
- Railways
- Motorways/expressways
- Urban and rural roads
- Bridges and overpasses
- Airports
- Seaports
- Traffic engineering
- Logistical management







- Project Management and Construction Supervision for the Pink Line Monorail Project (Khae Rai–Min Buri): Mass Rapid Transit Authority of Thailand
- Survey and Detailed Design of Chon Buri–Nong Khai Motorway: Section Chon Buri (Laem Chabang Port)– Prachin Buri (Highway No. 359) Section 1 Part 2: Department of Highways
- Project Management and Construction Supervision for the High-Speed Rail Connecting Three Airports: Eastern Economic Corridor Office
- Construction Supervision for the Commuter Train System (Red Line) Project: Bang Sue–Rangsit Section: State Railway of Thailand



### Highlight Projects



- Survey and Design for Construction of a Bridge Over the Chao Phraya River in the Area from Thanon Lat Ya-Thanon Maha Phruettharam: Bangkok Metropolitan Administration
- Document Preparation and Consulting Services for Selection of Private Parties for Motorway Rest Area Development and Management for Intercity Motorway 7, Si Racha and Bang Lamung Districts: Department of Highways
- Design of a Pedestrian Bridge across the Ping and Nan Rivers Connecting the Access to the Symbol of the Chao Phraya River (Pasan): Nakhon Sawan Municipality

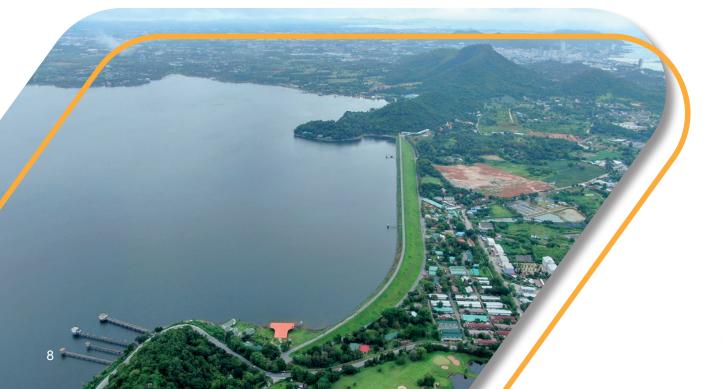
### Water Resources

Water resources development is one of TEAM GROUP's specializations which are nationally and regionally renowned and recognized. TEAM GROUP has capabilities to provide a wide range of services from basin development; irrigation management; development of water resources, dams and water supply; forecast of water situations; to development of flood protection and drainage system as well as hydropower development for both national and regional projects. Hence, a wealth of expertise to fully meet the client's needs in all aspects.

### **Service Areas**

- Basin-wide water resources management and development
- Irrigation
- Flood control and drainage
- Hydropower
- Coastal engineering
- Water supply





### Highlight

### **Projects**

- Construction Supervision for Water Transmission Tunnel and Related Work under the 9<sup>th</sup> Bangkok Water Supply Improvement Project: Metropolitan Waterworks Authority
- Feasibility and Detailed Design of Water Transmission Pipelines for Enhanced Water Consumption, from Khlong Si Yat Reservoir-Khlong Luang Rachalothorn Reservoir, Tha Takiap Subdistrict, Chachoengsao Province: Provincial Waterworks Authority
- Detailed Design of Luang Prabang Hydropower Project: Ch. Karnchang (Lao) Co., Ltd.
- Amarapura Urban Development Infrastructure Design: Mandalay Business Capital City Development Ltd. (MBCCD)
- Design of the 80,000 m³ Clear Water Tank Project at Bang Phli Pumping Station and Related Works: Metropolitan Waterworks Authority
- Review Basic Design for Pak Lay Hydropower Project: Gulf Energy Development PCL.
- Emergency Action Plan (EAP) Preparation for Bang Phra Dam: Royal Irrigation Department



- Basic Design of Xekong 4A and 4B Hydroelectric Power Projects, Lao PDR: Ratch Group PCL., International Renewable Power Co., Ltd., B.Grimm Power PCI.
- Water Monitoring Telemetry System Development (Nakhon Si Thammarat Province and Bang Saphan District) Project: Department of Water Resources
- Feasibility Study for Improvement of the Left Side of the Mae Klong Yai Irrigation Project in Kanchanaburi, Suphan Buri, Ratchaburi, Nakhon Pathom, Samut Sakhon, and Samut Songkhram Provinces: Royal Irrigation Department
- Survey, Study and Formulation of a Water Resource Management Master Plan for Rattanakosin Island– Sawankhalok Road and Samsen Canal: Drainage and Sewerage Department, Bangkok Metropolitan Administration



### Building and Infrastructure

TEAM GROUP has integrated multidisciplinary expertise to provide services for design, construction and development of buildings and infrastructure, and land development as well as town and regional planning, by adopting state-of-the art technology and innovations, such as Point Cloud Drone Survey or Building Information Modeling (BIM). We offer a full spectrum of services to clients, from project analysis, planning, design, project management and construction supervision, to operation and maintenance. Hence, this will give clients confidence in the quality and value for money including accuracy of the work and optimum utilization of resources throughout the useful life of the buildings, particularly in mega projects.

### **Service Areas**

#### **Urban and regional planning**

- National development plan
- Regional development plan
- Sub-regional development plan
- Strategic master plan
- Comprehensive plan
- Specific plan/sub-area plan
- Urban design & urban planning

#### **Building and infrastructure**

- Architectural design
- Infrastructural design
- Engineering design
- Rehabilitation/renovation
- Site selection
- Tendering process
- Green building
- Project management consultant (PMC)

#### Land development planning







- Design of the Office Building of the Council of Engineers Thailand: Council of Engineers Thailand
- Cargill Meats Thailand's Korat Project Pullet Farm 8: Cargill Meats (Thailand) Ltd.
- PTT International Distribution Center: PTT Polymer Logistics Co., Ltd.
- Siam Kraft: Paper Machine Factory Ban Pong, Ratchaburi: Siam Kraft Industry Co., Ltd.
- Engineering Detailed Design of Reignwood International School: KIS International Co., Ltd.
- The Bangkok Christian Hospital Expansion Project (Building B): The Bangkok Christian Hospital
- Master Plan and Infrastructure Engineering Detailed Design of Reignwood Park: Reignwood Group
- The Whizdom COEX Pinklao Project: Magnolia Quality Development Corp., Ltd.
- Subsidiary Establishment/Co-investment and Consulting Services for Subsidiary Management after Establishment/Co-investment for the Operation of Related Businesses of Metropolitan Waterworks Authority: Metropolitan Waterworks Authority
- Project Management Consultant (PMC) for the Development of U-Tapao Airport and the Eastern Aviation City, Phase 1: Eastern Economic Corridor Office

 Consultancy Services for Preparation and Support for the Committee's Tasks under Section 35 of the Private Investments in State Undertakings Act B.E. 2556 (2013) for Commercial Area Development at Bang Sue Grand Station (Zone A) Project: State Railway of Thailand



# **Environmental Management**

with communities.





For over 45 years, TEAM GROUP has accumulated experience in environmental study and management for a multitude of projects, both domestically and internationally, i.e. water resources, transportation, building and land infrastructure, and clean energy as well as wastewater, solid waste and hazardous waste management, etc. We have capabilities to provide a broad range of services from environmental impact assessment, social and health impact assessment, environmental management planning, migration management, and social development planning.

With our highly experienced teams, entrepreneurs can be assured that the project development will have the least impact on the environmental quality, society and people's health so as to enable the project's sustainable co-existence



### **Service Areas**

- Strategic Environmental Assessment (SEA)
- Initial Environmental Examination (IEE)
- Environmental Impact Assessment (EIA)
- Social Impact Assessment (SIA)
- Health Impact Assessment (HIA)
- Environmental Management Plan (EMP)
- Resettlement Action Plan (RAP)
- Social Development Plan (SDP)
- Wastewater
- Solid waste
- Hazardous waste



### Highlight

### **Projects**

- ESIA Services for AMATA Smart & Eco City at Muang Xay, Lao PDR: AMATA Corporation PCL.
- Preparation of Lender ESIA for the Pak Lay Hydropower Project: Sinohydro (Hong Kong) Holding Ltd. & Gulf Energy Development PCL.
- EIA Report for AMATA City Chonburi Industrial Estate (Project 2): AMATA Corporation PCL.
- Study and Preparation of Environmental Impact Assessment Addendum Report for the Steam and Electricity Generating Unit Project, Ban Pong District, Ratchaburi Province (2<sup>nd</sup> Addendum): Banpong Utilities Co., Ltd.
- Study and Preparation of Report on Compliance with Code of Practice and Report on Study of Environmental Quality and Safety Impact Prevention and Correction Measures for the 9.9 MW Waste-to-Energy Project: Watsaduphan Thurakit Co., Ltd.
- Environmental and Health Impact Assessment for the Mae Moh Power Plant Units 8-9 Replacement Project: Electricity Generating Authority of Thailand



- EIA Report for the Burapa Power Plant Project: Burapa Power Co., Ltd.
- Environmental and Health Impact Assessment for the Laem Chabang Port Phase 3 Terminal F Project: GPC International Terminal Co., Ltd.
- Feasibility Study and Environmental Impact Assessment of Loei Bypass Project, Loei Province: Department of Highways
- Construction of Highway Route 4: Pla Lang Intersection-Nuea Khlong District Section Project, Krabi Province: Department of Highways



### Energy

With more than four decades of engineering works, TEAM GROUP's energy services include alternative energy, renewable energy, solar energy, clean energy and energy conservation, oil, gas, fossil fuels and related industries to enable sustainable energy use.

### **Service Areas**

#### **Conventional energy**

- Coal-based energy
- Oil & gas based energy

### Infrastructure development relating to energy projects

- Power plants
- Transmission lines
- Petroleum and pipelines
- Petroleum loading facilities
- Jetties
- Tank farms

#### **Energy conservation**

- Energy auditing
- · Energy efficiency improvement
- Energy management

### Sustainable and renewable energy

- Hydropower
- Biomass/biogas
- Wind/solar/geothermal
- Fuel switching
- Energy from waste







- Alternative transport fuels
- Combined Cooling, Heating and Power (CCHP)

Independent Engineer (IE) or Lender's Engineer and Technical Due Diligence





- Project Management Construction Supervision for Prathumwan Smart District Cooling: Prathumwan Smart District Cooling Company Limited (PSDC) under BCPG PCL., Keppel Corp., Ltd, and TEAM Consulting Engineering and Management PCL.
- Detailed Design of Civil Engineering Work for 6 Units of CCCP: Amata B.Grimm Power (Rayong) Ltd. (Thailand)
- Satellite Blast Resistance Building Detail Engineering: Thai Oil PCL.
- Consultancy Services for Repair and Restoration of the Port's Components for Thai Connectivity Terminal (TCT): Map Ta Phut Industrial Port, Rayong Province
- Retaining Wall Improvement Jetty 5-7: The Shell Company of Thailand Ltd.

- Engineering Consultancy Service for Modification of CNS Jetty 24D: The Shell Company of Thailand Ltd.
- Consulting Services for ACP Terminal (Condensate Optimization Movement Study and Basic Engineering Design for ACP Terminal): PTT Exploration and Production PCL.
- The Installation of Rooftop Solar Power Generation System for the Siam Quality Steel Co., Ltd. (SQS) Project: Siam Quality Steel Co., Ltd.
- The Installation of Rooftop Solar Power Generation System for the Chuen Siri Co., Ltd. Project: Linh Gas Cylinder Co., Ltd.



Highlight

**Projects** 

### **Related Business**

With strong commitment to participate in creating and developing the economic, social and environmental sustainability for Thailand and the better world, TEAM GROUP has thus expanded into related business by building on its wealth of expertise and experience to launch a diversity of innovative services along with project investment and development in various sectors.

## Service, Investment and Development Areas



- Water resources
- Energy efficiency enhancement
- Renewable energy
- Solar rooftop
- Geotechnical instrumentation
- Engineering Procurement Contract (EPC)
- Aerial photograph and mapping (dronebased survey), Building Information Modeling (BIM) for architecture

- Engineering and construction, and asset management using the digital twin technology
- GHG validation and verification services
  - Verification service for certification of Carbon Footprint of Organization (CFO)
  - T-VER validation/verification service
  - Verification of Renewable Energy Certificate (REC)
  - Verification of ESG Sustainability Report Assurance in accordance with GRI Reporting



### **Highlight** Projects

- Phase 1 of the New Zoo Construction at Khlong Hok: The Zoological Park Organization of Thailand under the Royal Patronage
- Phase 2 of the Construction of the Precious Wood Knowledge Museum on the Auspicious Occasion of the Grand Coronation Ceremony: Office of the Permanent Secretary, Ministry of Natural Resources and Environment
- District Cooling Project Agreement for the Commercial Area in Suanluang-Samyan with Chulalongkorn University: Chulalongkorn University
- The Water Treatment and Water Supply System for Sawanpracharak Hospital (New Branch): TEAM Consulting Engineering and Management PCL.
- Digital Twin Development Project: a Pilot Project for Managing Public Utilities and Properties in Samut Sakhon Industrial Estate: Industrial Estate Authority of Thailand
- Management Consultant of the Project on Adjustment and Development of Chiller System Efficiency: TEAM Consulting Engineering and Management PCL.



- Drone-based Topographic Survey for Feasibility Study Review of Laem Chabang Port Phase 3: Port Authority of Thailand
- Drone-based Topographic Survey under Digital Twins for IEAT Project: Industrial Estate Authority of Thailand
- Dam Instrumentation for Reservoir Project: Royal Irrigation Department





# Values, Professionalism, and Innovations

TEAM GROUP puts great emphasis on delivery of services and outputs to meet the clients' requirements with strong dedication by quality teamwork and on-time delivery, based on its long-held Service, Quality, Teamwork (SQT) values.

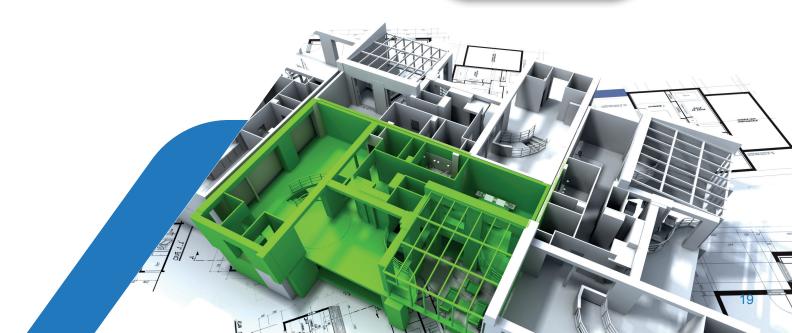






TEAM GROUP is a Thai and ASEAN consulting group with the target at the development of innovative businesses in the region by harnessing innovations and technologies to enhance operational efficiency while being environmentally friendly, such as asset management using the digital twin technology and Building Information Modeling (BIM) which is a process of digital replication of physical project conditions with accurate size, physical conditions and functions. BIM process has been applied to design and construction management works as well as operation and maintenance. With the combination of Digital Twin, BIM and drone capabilities, development and improvement of work process can be achieved, with cost effectiveness, reduction in project implementation time, and providing support for effective decision making.





### **Driving Business**

### towards Sustainability

Through corporate awareness of society and the environment, TEAM GROUP promotes sustainability through Creating Shared Values (CSV). We conduct a plethora of activities, ranging from provision of scholarships to schools in provinces, giving lunch funds to needy schools, to sponsoring library and sports facilities for communities, and environmental enhancement activities such as planting mangrove seedlings and artificial coral reef establishment. In coordination with philanthropic organizations such as the Thai Red Cross Society and the TEAM GROUP Foundation, TEAM GROUP provides social support such as blood donations and delivery of necessities to underprivileged people on a regular basis.

TEAM GROUP also provides society with knowledge compiled through our years of experience.

Our public seminar is one of the intellectual events that we arrange for disseminating our knowledge for public benefit.

The younger generation is our future, so in this context TEAM GROUP provides high-school students with educational visits to construction sites for hands-on experience at the ground level.





### our Credentials

TEAM GROUP has won the trust of domestic and international clients in both public and private sectors. More than 100 companies and organizations have faith in TEAM GROUP and our achievements have grown to more than 3,000 projects.

### **Government & State Enterprises**

















































































































### **International Organizations & Private Enterprises**

























































































































































































































and many more...













#### **TEAM Consulting Engineering and Management Public Company Limited**

151 Nuan Chan Road, Nuan Chan, Bueng Kum, Bangkok 10230, THAILAND Tel: + 66 2509 9000 Fax: +66 2509 9090 www.teamgroup.co.th

