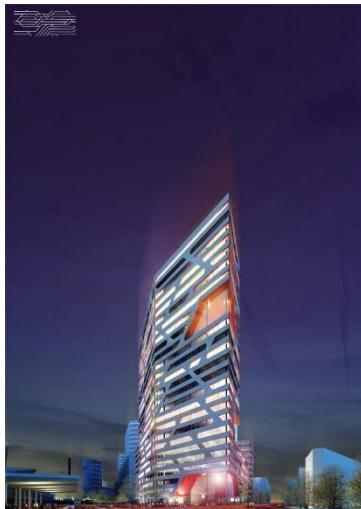


80 YEARS

80 YEARS



INROS LACKNER.
Consulting Engineers & Architects

Southeast Asia

1936 Prof. Dr. Agatz published a textbook for elementary and seminal for hydraulic engineering entitled The Battle of the Engineer to Earth and Water in Foundation

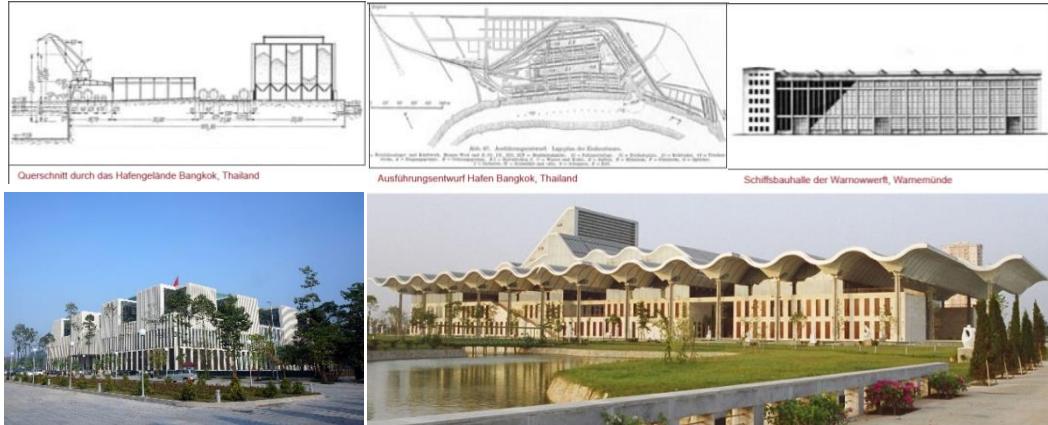
1937 First international contract, expansion of the seaport in Bangkok, Thailand

2002 Foundation of Inros Lackner Cambodia

2004 First project in Vietnam, the National Convention Centre Hanoi, Vietnam (joint venture with gmp)

2008 Foundation of Inros Lackner Vietnam LLC

2015 Completion of National Assembly House in Hanoi



1936-1944
Agatz & Bock
Engineering Office
Berlin and Cologne

1945-1949
Prof. Dr. Agatz
Engineering Office Bremen

1949-1970
Engineering Office Prof. Dr. Agatz Nachf.
Bremen

1950-1967
Branch Office Rostock of the VEB
Industrial Design Stralsund

1971-1975
Dr. Lackner-Dr.
Kranz-Barth,
Consulting Engineers

1968-1989
VEB Industrial Constructions Rostock,
Branch Industrial Planning Rostock

1976-1997
Prof. Dr. Lackner & Partners
Consulting Engineers GmbH &
Co. KG

1997-2003
Prof. Dr. Lackner and Partner
GmbH

1990-2003
INROS Planungsgesellschaft mbH

1992-2003
INROS Building and Planning
Consultant GmbH

1994-2003
Engineering Office Koldrack,
Bernhardt and Partners GmbH

2001-2003
INROS LACKNER
Consulting Group GmbH

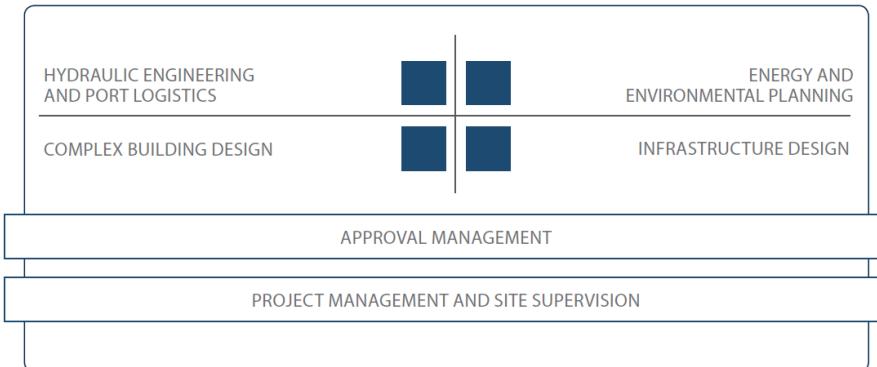
1992-2002
Engineering Partnership for Project
Management GmbH

1994-2002 Research and
Engineering Office for Traffic
Logistics and Regional Planning
GmbH

1991-2003
Partnership for Environmental Planning GmbH

Since 2004
INROS LACKNER AG.
Berater, Planer, Architekten, Ingenieure

Since 2014
INROS LACKNER SE.
Consulting Engineers & Architects



Employees

A prerequisite of successful development is a high professional qualification. Experience is passed on and expanded. Today, over 600 employees work at more than 20 national and international locations and are responsible for the development and implementation of projects. They use consolidated, in-depth technical and specialist knowledge that ultimately is the key to success. Education and training play, therefore, an important role, as does promoting intercultural education as well as team and communication skills.

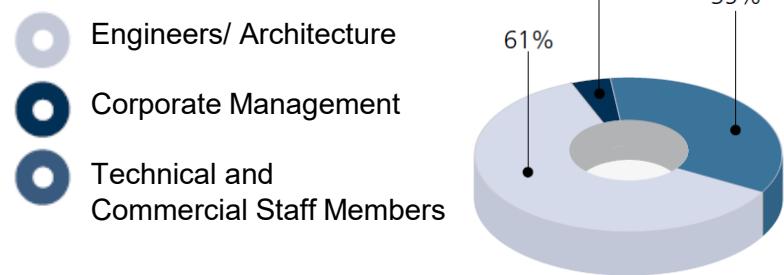


Quality management

Guaranteeing quality is a continuous process. Our internal quality management system is certified in accordance with DIN EN ISO 9001-2008

Design from a single source

We offer a wide range of expertise, which has continuously been expanded throughout the company history. We provide services in the fields of hydraulic engineering and port logistics, integrated building design, energy and environmental design and infrastructure design.



"The quality of our design is based on connecting multiple key competences from the areas of structural, hydraulic, transportation and civil engineering as well as approval and project management "

il Locations and affiliated companies

The decentralized company structure with numerous locations, affiliated companies and international offices combines local expertise and international knowhow.

**il** International offices

INROS LACKNER (CAMBODIA) CO LTD (ILKH) is an affiliated company of **INROS LACKNER SE** of Germany. ILKH was founded in 2002.

ILKH has been providing civil and structural engineering services to public and private sector clients in Cambodia, Vietnam and Germany and currently employs 40 engineers and technicians.

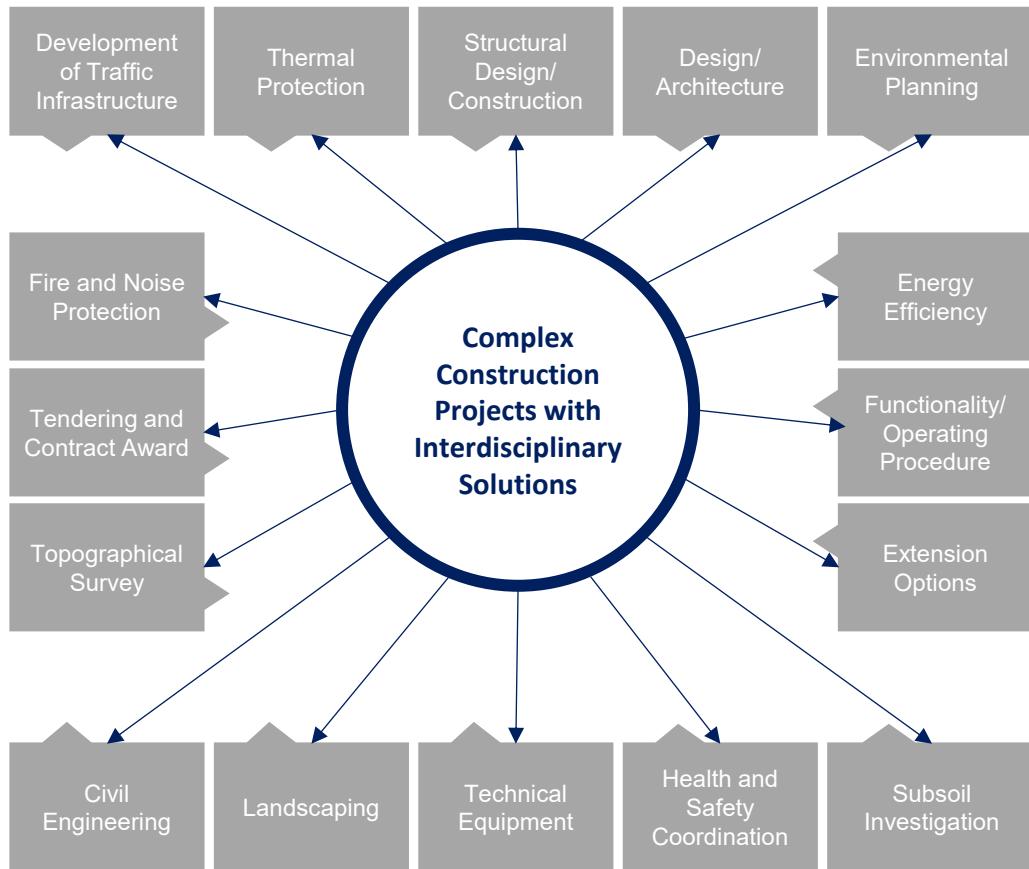
INROS LACKNER VIETNAM LLC (ILVN) was established in 2008 under the Investment Law of Vietnam as a 100% foreign invested company by its sole Investor **INROS LACKNER SE**, Germany. ILVN has been providing architectural and mechanical & electrical design and supervision services for projects in Vietnam, Cambodia and Germany. ILVN currently employs 35 architects and engineers.

The combined experience and expertise of **INROS LACKNER SE**, **INROS LACKNER VIETNAM** and **INROS LACKNER CAMBODIA** puts us in the position to offer a wide range of engineering consultancy services in Asia.

The services provided by **INROS LACKNER** include:

-  **Architectural design & supervision services**
-  **Civil and structural design & supervision services**
-  **MEP design and supervision services**
-  **Topographic Survey and Digital Terrain Modelling**
-  **Geotechnical Investigation**
-  **Pile Testing**
 - Industrial/ Commercial buildings
 - High-rise buildings/Residential buildings/Office buildings/Hotels
 - Convention/ Exhibition
 - Hospital buildings
 - Institutes/ Laboratories
 - Educational buildings
 - Sport facilities

il Specialized and master planning



il Hydraulic engineering and port logistics

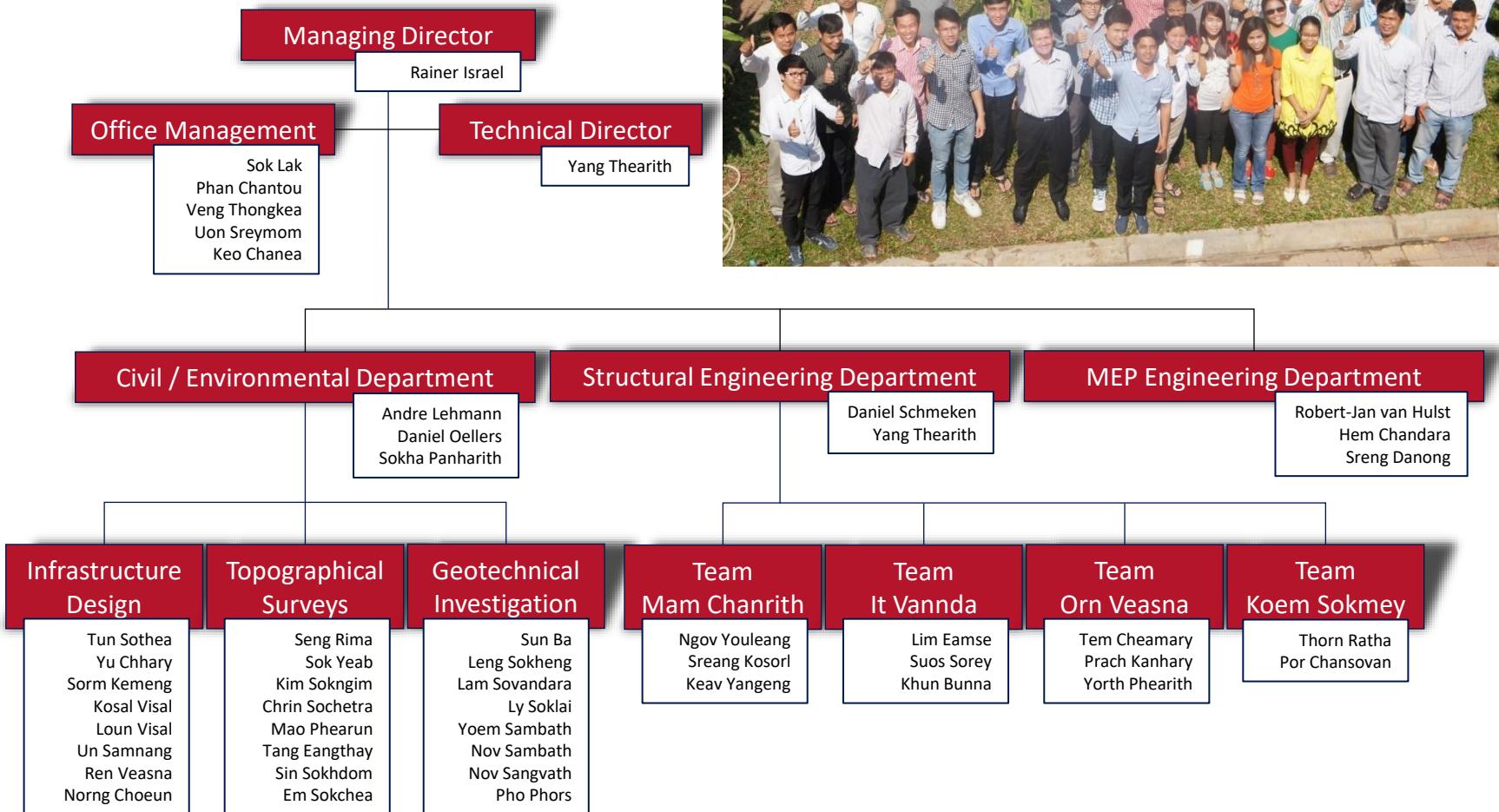
- Seaports and River ports
- Flood Protection / Dykes
- Inland waterways
- Flood retention basins
- Locks/ Weirs/ Barrages
- Marinas/ Jetties
- Shipyards
- Breakwaters
- Transshipment platforms
- Offshore structures
- Coastal protection structures

il Integrated building design

il Energy and environmental planning

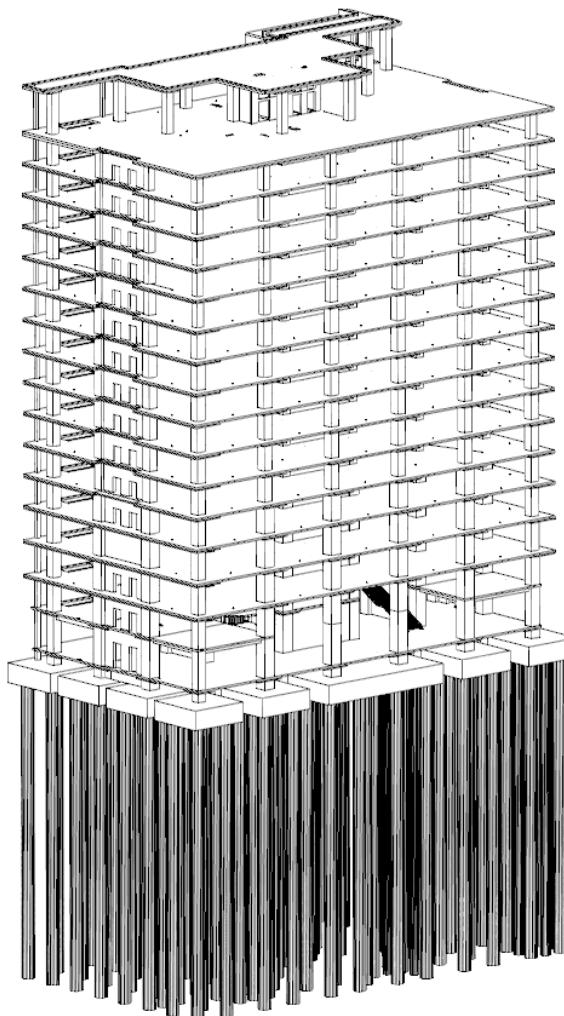
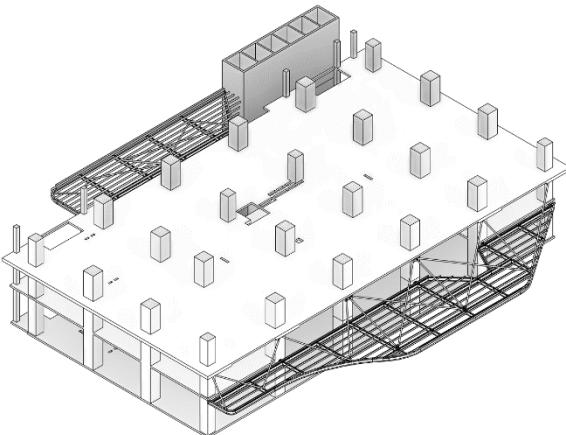
il Project management and site supervision

il Infrastructure design



Selected References

Cambodia & Vietnam



DPCG Headquarter Phnom Penh, Cambodia

Project Description

The Daun Penh Cambodia Group Headquarter building is located along Hun Sen Blvd, in a newly developing area south of Phnom Penh. The project was planned to house all group's subsidiaries and office spaces for rent. The 17-storey building has a gross floor area of around 24,000 sqm. The load bearing structure of the building is made of post-tensioned floor slabs, supported by reinforced concrete columns which are resting on bored pile foundations

GFA: 24,000 sqm

Scope of service: Structural Design Review, Design for Structural Modification, Design of New Lift Shafts

Investor: DPCG

National Water Resources Data Management Center Cambodia



Project
Construction of a five-story office building with a floor area of 8,880 m²

Client
Royal Government of Cambodia,
Ministry Water Resources and
Meteorology

Finance Agency
ADB Loan No. 3877-CAM

Implementation
2022 - 2024

Scope of Service
Structural building design
Preparation of tender documents
Supervision of structural works

Total Investment
US\$ 7,500,000



Techo International Airport

Phnom Penh, Cambodia

Project Description:

Construction of a 4F-class airport on an area of 2,600 hectares in the Kandal Province south of Phnom Penh.

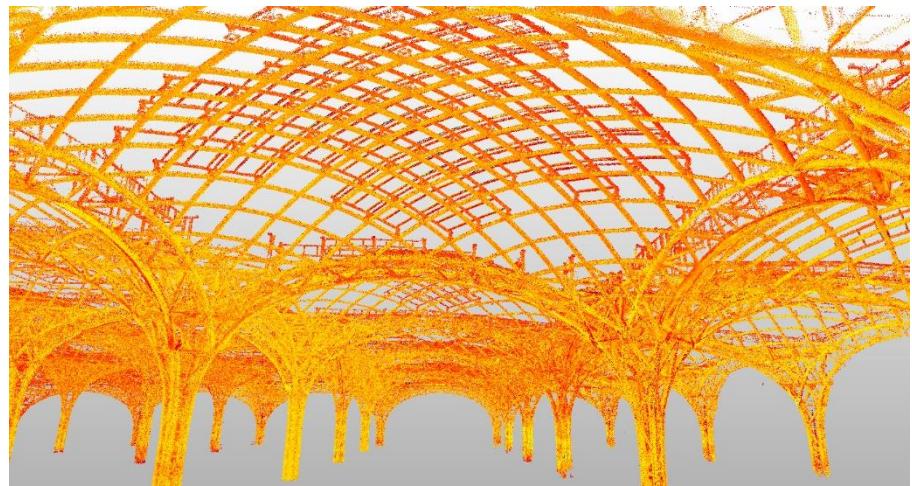
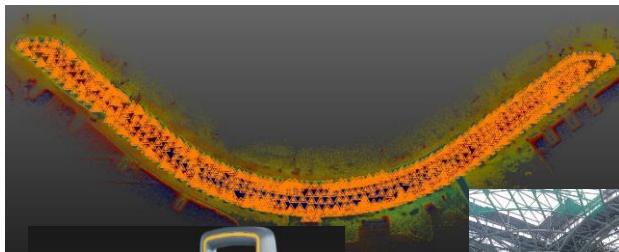
Investment volume: 1.5 Billion USD

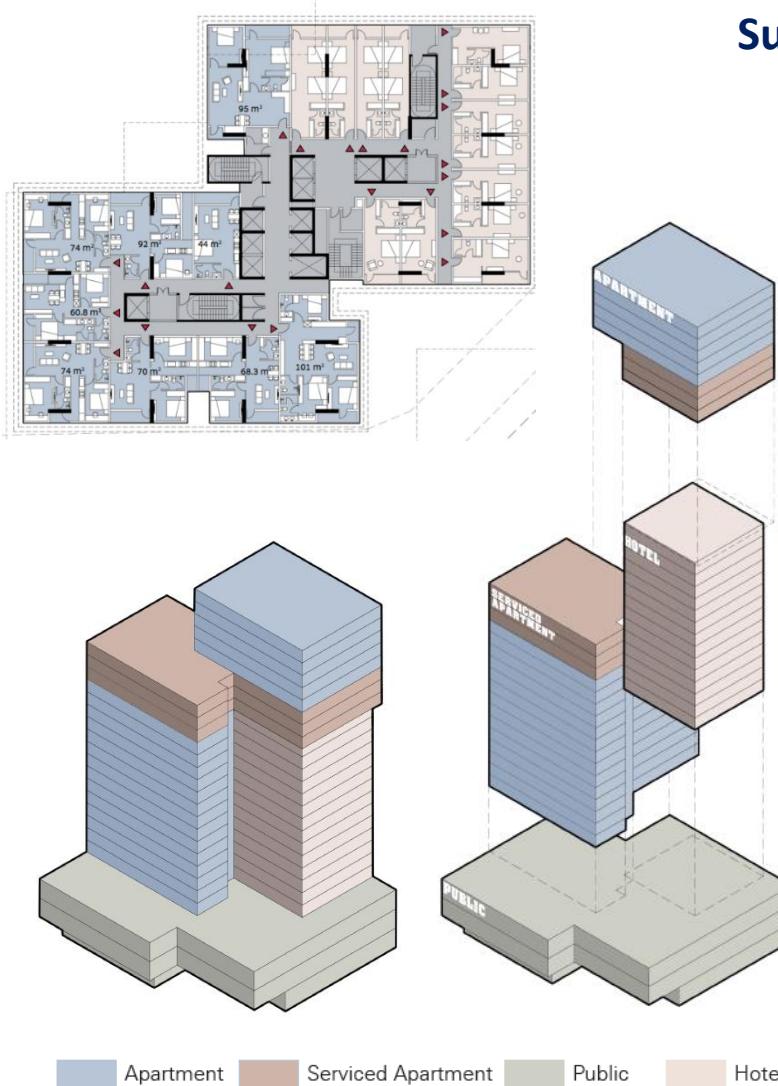
Scope of services by ILKH:

- 3D laser scan of the supporting steel structure of the Head House and the Northwest Pier
- Editing and processing of point cloud data
- Generation of a 3D surface model of the steel structure

Client: LBL International Construction Co., Ltd.

Year: 2023





Sunset Tower Tay Ho Hanoi, Vietnam

Project Description:

Mixed-use 25-storey development featuring retail areas, offices, serviced apartments and a hotel

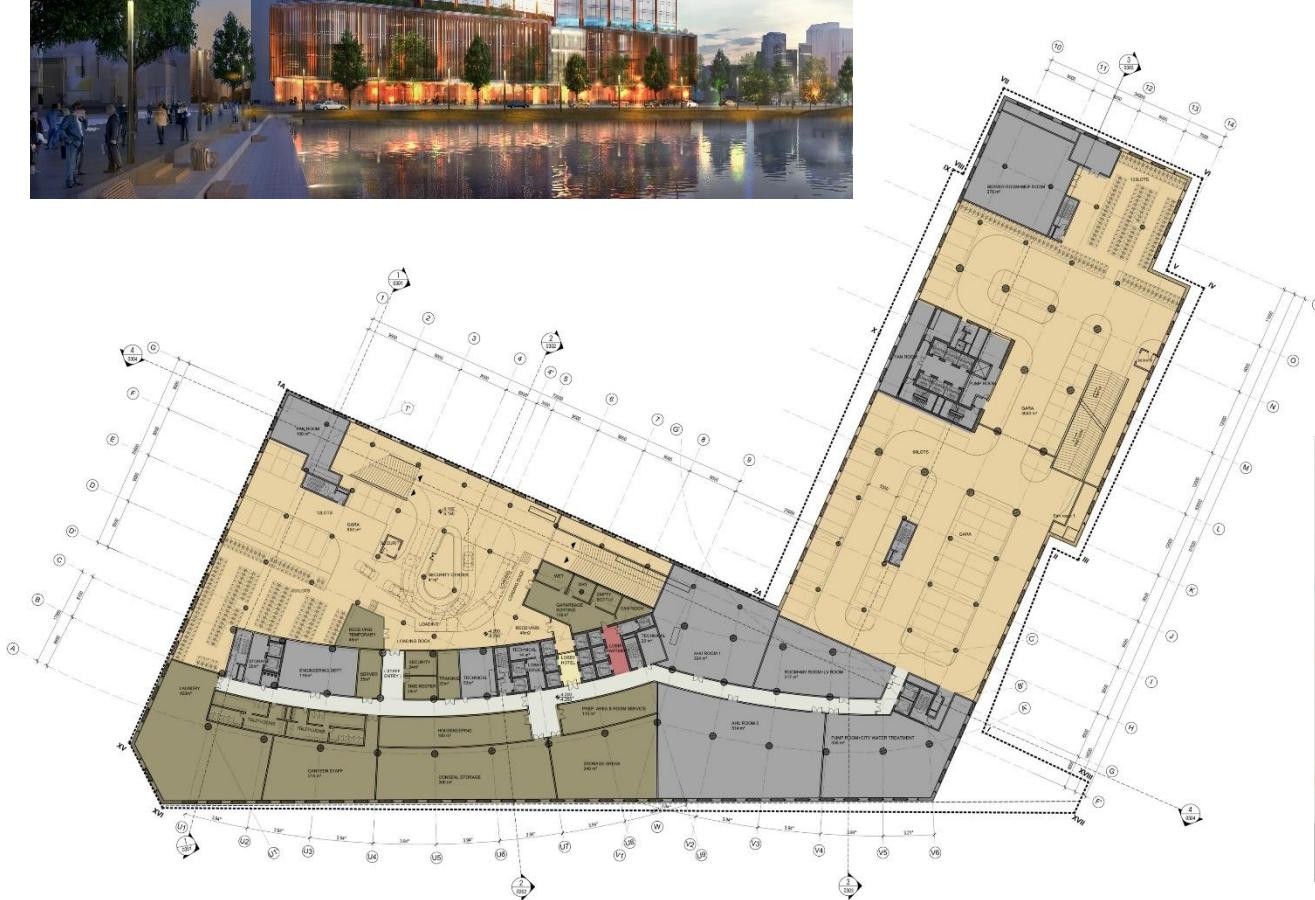
Developer:

Pacific Land Vietnam Ltd

Service by Inros Lackner:

- Review of existing building foundations
- Architectural, structural and MEP concept design

Year: 2016 - 2017



Giang Vo Complex Hanoi, Vietnam

Project Description:

Mixed-use 19-storey twin tower development featuring retail areas, offices and a hotel

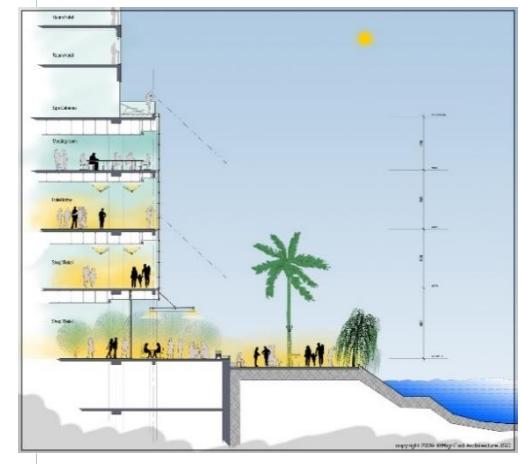
Developer:

Pacific Land Vietnam Ltd

Service by Inros Lackner:

Architectural, structural and MEP design from concept to construction, author supervision services

Year: 2016 - present





THE ZEI

**40-storey mixed uses development
Hai Dang, Vietnam**

Project Description (by owner) :

"The Zei - a "vertical city", fully integrated utilities for a modern, vibrant life. The Zei brings an energetic and inspiring living space with an endless green space from the first floor to the top of the building and a series of high-class utilities, serving all needs of work, play and entertainment, eating and drinking of residents"

- 4 floors of shopping centers
- CGV cinema
- 4-season swimming pool 700m2
- Modern gym, yoga and spa area
- Coworking Space
- Zen Space on the rooftop is surrounded by lush gardens
- Children's playground, sports ground, outdoor BBQ area
- Spacious green parks on the roof and every 3 floors of the apartment, green hanging gardens

Developer:

Finko-IDA Co. Ltd.

Service by Inros Lackner:

Independ third-party review on behalf of the developer of:

- Structural building design
- Mechanical, electrical and plumbing design

Year: 2016 - 2017



Exchange Square Phnom Penh Cambodia

Project Description:
Grade A mixed-use development with 20-storeys and 4 basement levels

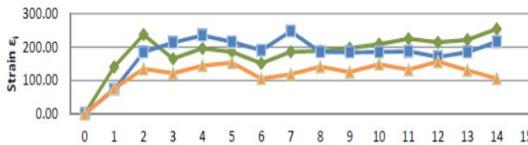
Developer:
Hongkong Land (Cambodia) Ltd

Design:
Arup, Aedas Hong Kong

Contractor:
POSCO E&C

Service by ILKH:
Survey and design of storm water drainage system;
Subcontractor services to POSCO E&C:

- Structural design of all temporary works,
- Monitoring of excavation and lateral support (ELS),



Year: 2014 - 2016

KMH Park

Phnom Penh, Cambodia



kmh park



Project Description:

50-ha mixed use development with shopping mall, offices and residential buildings.

Client:

Urbanland City Development

Project Manager:

Urbanland Asia

Architect:

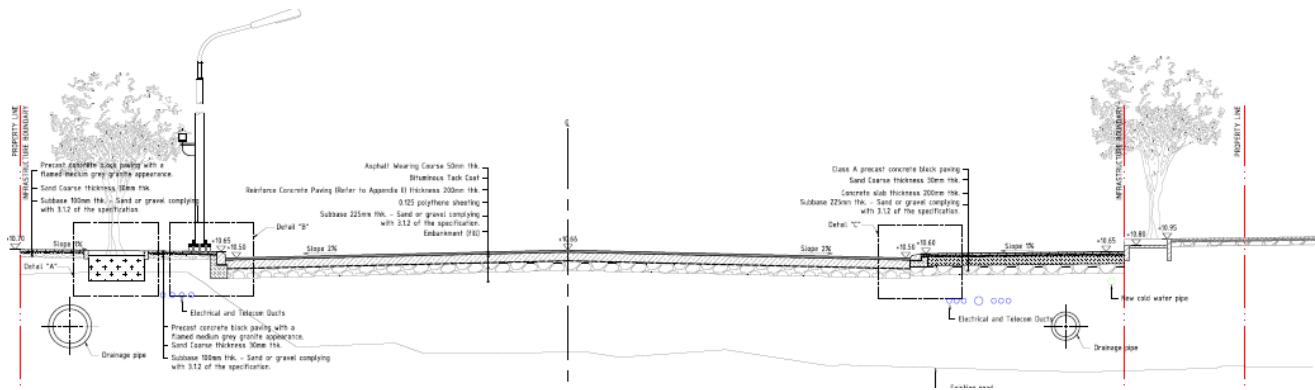
HKA & Partners

Service by Inros Lackner:

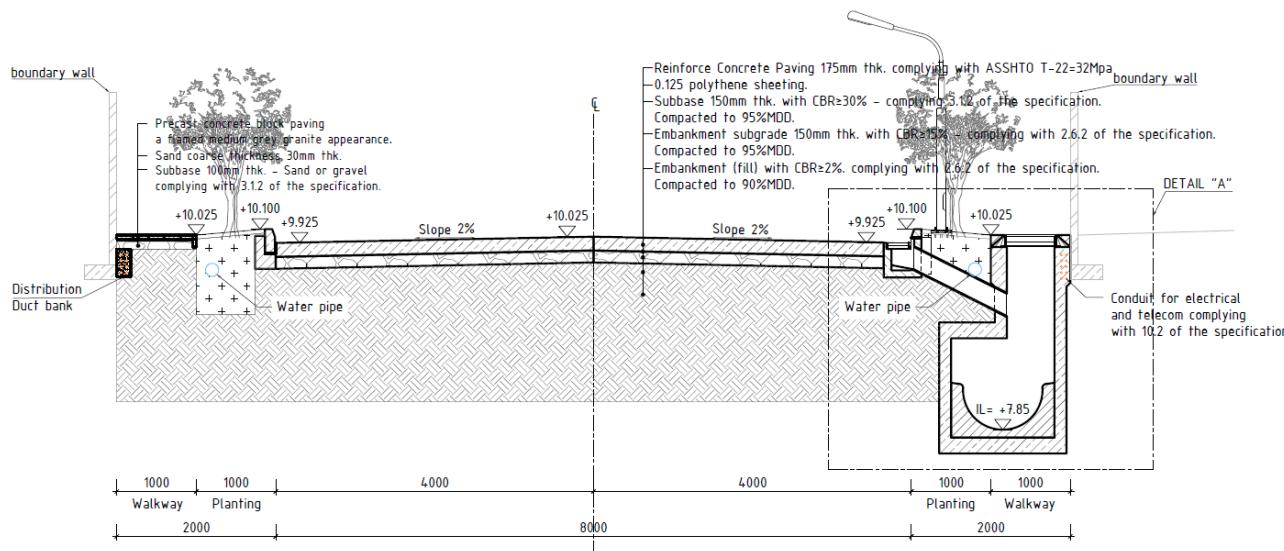
Concept, detailed design and tender documents for:

- Earth- and demolition works
- Pavements
- Stormwater drainage
- Wastewater drainage
- Fresh water distribution
- Electrical and telecoms ducting
- Street lighting

Year: 2019 - 2020



CHANKIRI PALM CREEK Phnom Penh, Cambodia



Project Description:

Development of a residential area on 13 ha of land located in Khan Dangkor in Phnom Penh.

Client:

URBANLAND HOMES CO., LTD

Project Manager:

Urbanland Asia

Architect:

HKA & Partners

Scope of services by ILKH:

Feasibility project study for civil infrastructure,
Concept, detailed design and tender documents for:

- Earthworks
- Pavements
- Stormwater drainage
- Wastewater drainage
- Fresh water distribution network
- Electrical and telecoms ducting
- Street lighting

Year: 2019 - 2021



Residence 90 Phnom Penh, Cambodia

Project Description:

Housing development with 90 villas on a 2.7 ha plot of land at the Phnom Penh City Centre

Developer:

Lifestyle Creations Limited

Service by Inros Lackner:

Review of architectural concept, Schematic and detailed architectural, civil, structural & MEP design services

Year: 2014 - 2016



ACLEDA Bank Headquarter Extension

Phnom Penh, Cambodia

Project Description:

20-storey office building with four basement levels

Client:

ACLEDA Bank Plc

Architect:

Aedas Vietnam

MEP Engineer:

Optima Consultants

Service by Inros Lackner:

Civil and structural engineering for following project stages:

- Feasibility study;
- Concept design;
- Schematic Design;
- Detailed design;
- Author supervision.

Year: 2011 - 2015





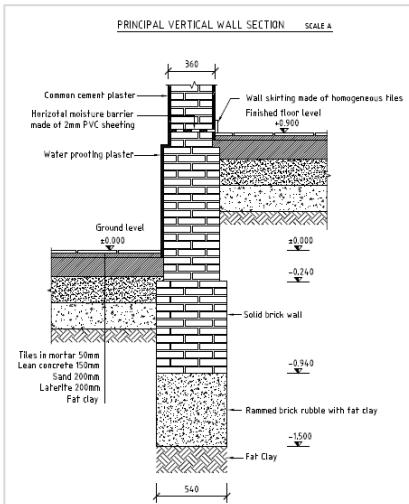
Residence of the Australian Ambassador Cambodia

Project Description:
Assessment of colonial building

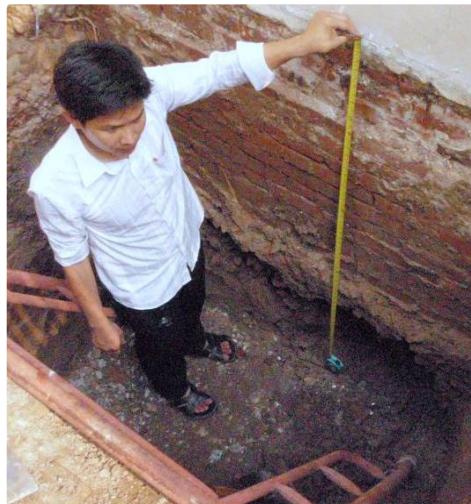
Client:
United Group Ltd

Scope of Service by IL:
Assessment of rising damp in masonry walls,
Preparation of rehabilitation concept,
Monitoring of moisture content in walls

Year: 2010 - 2013



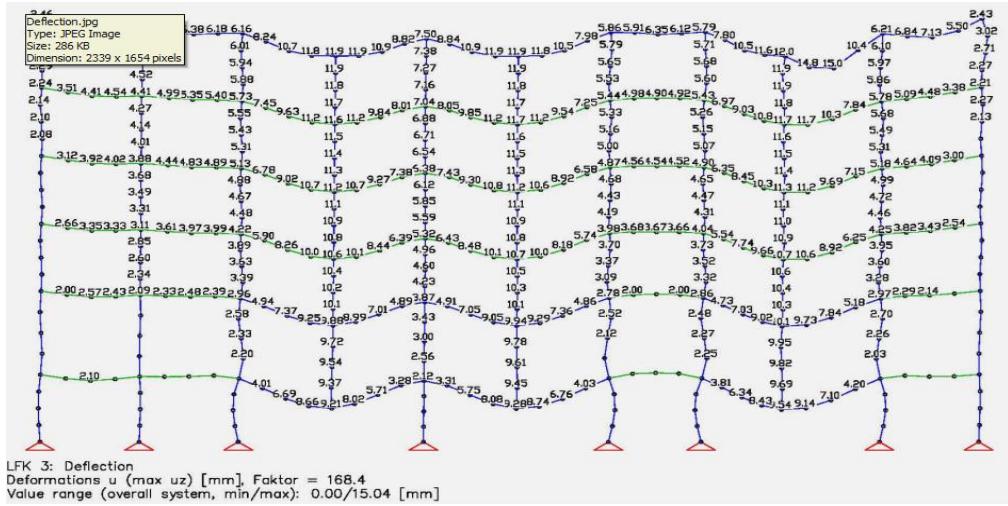
Design of rehabilitation works



Investigation of building foundations



Sampling of wall material for laboratory testing



Central Mansion Phnom Penh

Cambodia

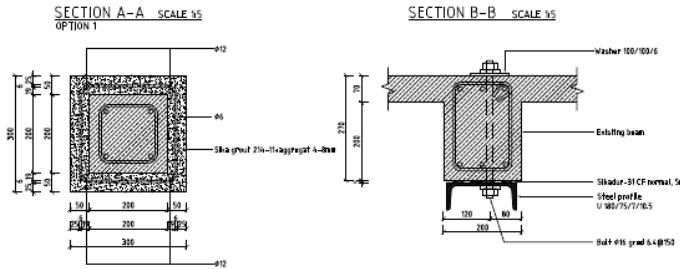
Client

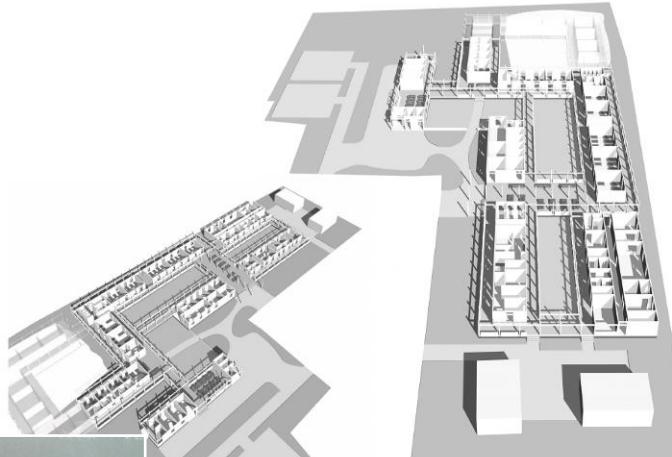
Hongkong Land (Cambodia) Ltd

Scope of Service

1. Structural survey and investigations
2. Structural design for modifications and strengthening measure
3. Author supervision of structural works

Year: 2011 - 2013





Takeo Eye Hospital

Takeo, Cambodia

Project

Rehabilitation of 80-bed Takeo Eye Hospital, Cambodia

Client

Caritas Cambodia

Financed by Christian Blind Mission and AusAid

Implementation

2007 - 2009

Scope of Service

in association with formconsult and Optima Consultant

- Topographic survey
- Soil investigations
- Conceptual Design
- Tender Design
- Project management

Investment Cost

US\$ 7 million

Sonja Kill Memorial Hospital for Children Kampot, Cambodia



Project

96-bed pediatric hospital with maternity and three operating rooms

Client

Sonja Kill Foundation, Germany

Implementation

2007 - 2009

Scope of Service

ILKH in association with Optima Consultants:
Detailed architectural, structural and MEP design,
Preparation of tender documents,
Supervision of works,
Management of construction contracts

Investment Cost

US\$ 8 million

