



**ECAS**  
CONSULTING ENGINEERS



# ENGINEERING OUR REGION'S FUTURE

## MESSAGE FROM THE MANAGING DIRECTOR

It has been an exciting journey building the company over the last 20 years with an extensive list of accomplishments that we are proud to put our name on. As a company, we have grown internally to over 120 employees with a number of professional engineers. I feel very honoured to be leading a very dedicated and talented pool of professionals who are responsible for some of the country's best developments.

In 2015, we were awarded the BCA Construction Excellence for our work as structural consultant for the Spectra Secondary School. We also received the BCA Green Mark Platinum Award for the same project in 2013. We also take pride in being a Merit Awardee for the Structural Steel Excellence Awards 2014 for the "innovative, efficient and productive use of steel structures in the built environment" for Seacare Hotel. In 2007, we were recognized by the Structural Steel Society for our "distinguished use of structural steel for its creativity, value and innovation" for the Alexandra Link Bridge. All of these recognitions are a product of the hard work and commitment of every employee in the company.

With these recognitions aside, seeing our work contribute to the growth of our region and transform lives for the better has been the most rewarding. We only foresee ourselves progressing to greater heights and putting our collective expertise into introducing worthwhile innovations and contributing to the accomplishment of landmark projects in the region.

What we have learned from the last two decades is that we are in the prime position to engineer our region's future and successfully push boundaries. We anticipate the future with a more strategic stance as we acquire opportunities for growth beyond our borders. We invite you to join us in our journey for the next 20 years.

Kind Regards,



Chan Ewe Jin  
Managing Director







WE ARE FULLY COMMITTED TO  
EVERY JOB WE UNDERTAKE.

## ABOUT US

ECAS Consultants Pte Ltd is a multidisciplinary engineering firm providing civil, structural, geotechnical, mechanical, and environmental engineering services to clients of the public and private sector. We have successfully established a reputation for proposing best-value solutions that save resources, increase efficiency and maximize outcomes while maintaining the highest market standards. Today, with our 120-strong workforce, we remain driven towards delivering innovative solutions, developing strong client relationships and being leaders in the development of our region.

Our track record includes renowned projects such the Marina Coastal Expressway, the Alexandra Arch at Hort Park, the Downtown Line MRT and numerous condominiums across Singapore. We rely on our collective expertise and experience in providing design consultancy, accredited checking, construction management, and assessment and inspection services for buildings, bridges, roads, rail, and tunnels.

ECAS has a strong commitment to quality standards, environmental impact, and health and safety guidelines; its systems, processes, and directions are ISO 9001:2008, ISO 14001:2004, and OHSAS 18001:2007 certified, and has achieved bizSAFE STAR level. ECAS was also certified with the Singapore Quality Class for its attainment of strong business fundamentals and standards for good business performance.

## OUR PHILOSOPHY

We believe in fulfilling our clients' needs by providing higher buildability of our designs with the highest quality of service. We approach every project with strong professionalism and strive to add value to all the work we deliver. We work closely with our clients to understand their technical requirements and be able to provide solutions that adhere to our quality standards.

At ECAS, we understand that our industry is transformed everyday by new technologies and processes, and we encourage our team of dedicated professional, technical, and support personnel to stay up-to-date with innovations that benefit our clients. We maintain good relationships with our colleagues, partners, and clients to implement cohesive solutions in the market.





Greenwich V



Cashew MRT Station

## OUR HISTORY

### THE TEAM

We rely on the work of our team of more than 120 dedicated professional, technical and support personnel to develop strong client relationships, and become leaders in the development of our region. Our team members are fully conversant in all engineering systems and other disciplines including experience in public relations and interfacing issues. Our Professional Engineers are highly involved in the design and implementation of projects and act as mentors for the engineers who want to achieve higher certifications.



# 1996

Founding of EJ Consultants Pte Ltd by Er. Chan Ewe Jin, our current Managing Director.

# 2002

EJ Consultants Pte Ltd merges with ECAS Consultants Pte to form ECAS-EJ Consultants Pte Ltd. The firm went through internal restructuring in order to offer a complete range of engineering consultancy services across the market including design and build capabilities.

# 2016

Celebration of 20 years of excellence in providing high quality engineering services to the region. Rebranded to ECAS Consultants Pte Ltd.



## OUR CAPABILITIES



### BRIDGE AND ROAD ENGINEERING

Our bridge and road engineering services assure that high quality and safe infrastructure is in place for the transportation solutions our region demands. We work with key entities like authorities, utility companies, and other stakeholders in the construction of roads, bridges, highway interchanges, and flyovers.

We assist from the design stages to the completion of construction of a project and offer innovative solutions that are cost-effective and optimal for all stakeholders involved.

### ENVIRONMENTAL ENGINEERING

Our environmental engineers are well-versed in treating and minimising waste and pollution, and protecting ourselves, the air, water and soil from contamination by harmful chemicals. They ensure that our designs are in compliance with all the governing codes and environmental regulations.

We provide services in Green Mark consultancy, energy efficiency studies, water and wastewater treatment, renewable energy system design, storm-water detention tanks and pumping systems, and sewage over-pumping systems for sewer diversions.



### BUILDING ENGINEERING

Making sure that the buildings where we live, work, and learn are safe and enjoyable structures is the goal of all our building engineering projects. We offer structural design for building projects ranging from residential buildings to commercial, institutional, hospitality, and industrial buildings. We also have expertise in the conservation of historical buildings or shophouses.

Whether it is a condominium or a state school, our professionals will work with all parties to find cost-effective solutions to the project.



### GEOTECHNICAL ENGINEERING

With all civil engineering projects comes the need to understand the ground conditions and design a suitable foundation system for the safe transfer of the imposed load including the self-weight of the structures.

Our Geotechnical Engineering department is specialized in designing both shallow and deep foundation elements such as footings, piles, pile caps, deep rafts, diaphragm walls, secant bored pile walls, contiguous bored pile walls, and soldier pile with sheet pile walls.



### CIVIL ENGINEERING

The Civil Engineering team plans, designs, and develops infrastructure projects that support the growth of our region. Our engineers are well versed in all civil engineering terms and have extensive experience in the design and construction of infrastructure projects such as roads, tunnels, bridges, and supporting structures.

We support our clients throughout the whole project cycle, from feasibility studies to the final completion of the project, to periodic inspections.

### INFRASTRUCTURE ENGINEERING

Our infrastructure engineering services help create a safer, more sustainable, and prosperous future. We have the expertise to work on new and existing sewerage schemes, drainage schemes, canals, and tunnels. We understand the importance of dealing with multiple stakeholders and have an outstanding track record in completing projects of high magnitude.

We count on our geotechnical engineering team for management of complex ground conditions and provision of the most effective solution to the area.





# OUR CAPABILITIES



## MECHANICAL ENGINEERING

Our trained and experienced mechanical engineers can enhance the value of a building by providing integrated and effective solutions for energy-efficient air-conditioning and mechanical ventilation systems, reliable fire safety and protection systems, and well-designed layout of piping and plumbing systems.

Our goal is to create long-term value for the properties we help to design by creating a safe and comfortable working and living environment for its occupants and tenants.

## STRUCTURAL ENGINEERING

Regardless of the type of project we are dealing with, we make sure that the structural aspect of the work is up-to-date with standards and innovation in the industry. We take into consideration all of the client's requirements and demands and we deliver a project that suits the community and adheres to standards.

Our design engineers use the latest computer software such as ETABS, STAAD PRO V8i, SAP 2000, and BIM to solve complex structural issues and derive a cost-effective design.



## RAIL ENGINEERING

With over 10 rail projects completed and working on more, we have acquired the expertise in rail infrastructure design to serve our region. We carry out the whole design process from feasibility studies to engineering design and construction supervision.

We manage challenging environment conditions and coordinate with all stakeholders involved to complete the development of MRT stations and tunnels without disrupting services in the operating stations.



## TUNNEL ENGINEERING

We provide tunneling expertise in the planning, design, and construction supervision of tunnels for roads, rail, sewerage, power, and other utilities.

We have expertise in both Cut and Cover Tunneling method using ERSS wall with multi-level struts and Bored Tunneling method using Tunnel Boring Machine. We are experts in the design and supervision of NATM Tunneling method using Shotcrete as sprayed lining during temporary stage. PLAXIS is widely used for the tunnel design for both bored tunnel and NATM tunnel.







“ WE ASSIST OUR CLIENTS THROUGHOUT THE WHOLE PROJECT CYCLE, FROM DESIGN TO AUTHORITY APPROVAL.

### DESIGN CONSULTING

We conduct economic and technical feasibility studies to understand the impact of the project and propose the best solution to the client. We look at the project not as an independent property but as a small piece in a bigger puzzle.

### CONSTRUCTION SUPERVISION

Our professionals offer on-site supervision of the complete project to comply with industry standards. We make sure that what was designed is developed keeping in mind cost-efficient solutions to benefit the client.

### ASSESSMENT AND INSPECTION

As structures age, we need to make sure the safety of the structure is not compromised. We carry out inspections of infrastructure, buildings, and amenities, and propose recommendations for the safe maintenance of these.

### ACCREDITED CHECKING

We independently check the designs of the works to assure the constructibility of the project and ensure that all structures are compliant with the standards our region demands.

### PROJECT MANAGEMENT

We manage construction projects, whether it is a new building, a new extension of a building, A&A works, or upgrading works. Our goal is to deliver a high quality project, within the budget and schedule.

### DESIGN FOR SAFETY

We assist our clients to address and identify means to mitigate the risks inherent in the design of a construction project so as to reduce the safety and health risks during construction, maintenance/repair, and demolition of the building and structure.

### BIM

We offer pre-construction solutions for the creation and management of intelligent models leading to the design, construction and operation of various facilities.

### STEEL AND REBAR

We develop shop drawings and erection drawings for steel pieces for fabricators and contractors. Shop drawings include specifications, materials, and welding details while the erection drawings specify the position and installation in the structure.



INDUSTRIES  
WE WORK IN

REAL ESTATE



HDB  
Condominiums  
Detached Houses  
Commercial Buildings  
Hotels and Resorts

INDUSTRIAL



Light Industrial  
Warehouses  
Showrooms  
Storage Facilities  
Factories

UTILITIES



Sewers  
Pipelines  
Substations  
Drains  
Logistics

TRANSPORTATION



Rail  
Ports  
Airports

INFRASTRUCTURE



Roads  
Bridges  
Tunnels

INSTITUTIONAL



Schools  
Health Centres  
Community Centres  
Religious Buildings



## **ECAS CONSULTANTS PTE LTD**

16 Jalan Kilang, #03-01  
Hoi Hup Building  
Singapore 159416

Tel: +65 6533 6788  
Fax: +65 6536 0229

[www.ecas.com.sg](http://www.ecas.com.sg)

