



About Our Company

HiLT means the 'handle' of a sword. We chose hilt as the name of our company because when our clients draw their sword to execute a project, the hilt is the first point of contact for the consultancy service provider to plan and give insights so that when the sword is brandished, the hilt has stabilised the sword and henceforth the project could be met with the confidence of a skilled swordsman. The hilt is the fulcrum of an innovative solution to assist the client in realising their vision.

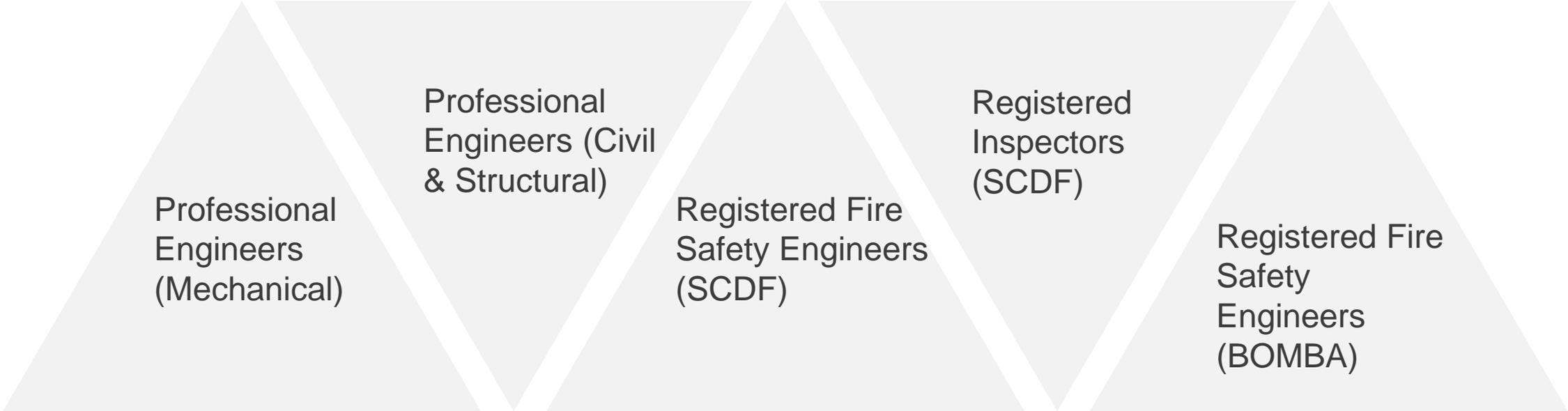
HiLT was formed in Singapore in the year 2002 with 3 Partners to provide a total solution in terms of consultancy services for the building and construction industry in the areas of Mechanical (M), Electrical (E), Civil and Structural (C&S) Engineering.

Since 2002, the company has founded its niche as a **Fire Consultant Specialist**, encompassing all things M&E and C&S required to deliver holistic fire engineering solutions for the **built environment, transit & infrastructure projects and oil & gas projects.**

Our main office is headquartered in **Singapore**, with operating offices in Kuala Lumpur, Malaysia and associates in Brisbane and Sydney, Australia.



WHO WE ARE



OUR MISSION



01. Long Term Relationship

We believe that serving our clients' long term interests is also our interest.



02. Clients' needs

We are sensitive to our clients by always matching their needs with our capabilities, in the most economical and innovative manner.



03. Engineering Solutions

Beyond prescriptive codes and design solutions, we continue to push boundaries by making use of best in class software for practical applications.

OUR VISION



01. Leading engineering consultancy

We continue to invest in ourselves to ensure we can be the best in class for what we do.



02. Industry Relevance

We focus our expertise in the built environment and ensure that we are competent in the projects we undertake. We participate in the design of buildings, road tunnels and transit infrastructure.



03. Solutions Provider

Every client is important to us, we are specialist consultants to developers, owners, contractors and fellow consultants.



04. Code Development

We involve ourselves actively in the planning and implementation of new codes and standards to best serve the industry.

COMPANY TIMELINE



2002

HiLT & Associates established



2007

HiLT Pte Ltd Incorporated with the Professional Engineers Board Singapore



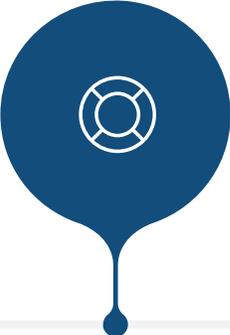
2014

FiSAC Fire Safety Design Merit Award



2017

ISO 9001 Certification



2018

Memorandum of Understanding with University of Canterbury, New Zealand



2024

Present Staff strength: 19

CERTIFICATION

1

ACRA 2007



2

PEB LICENCE



3

FSE LICENCE



4

INSPECTION LICENCE



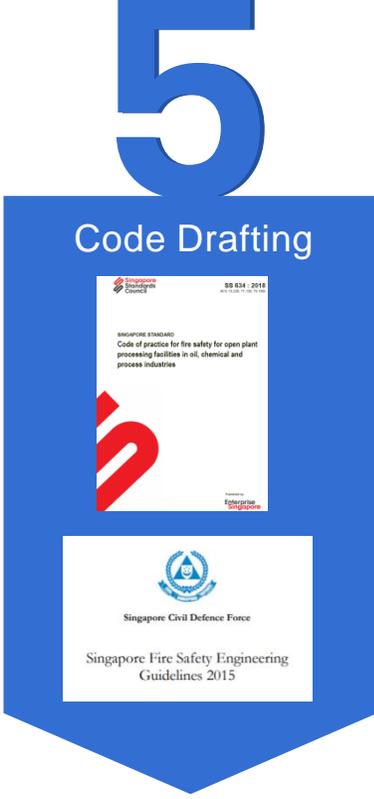
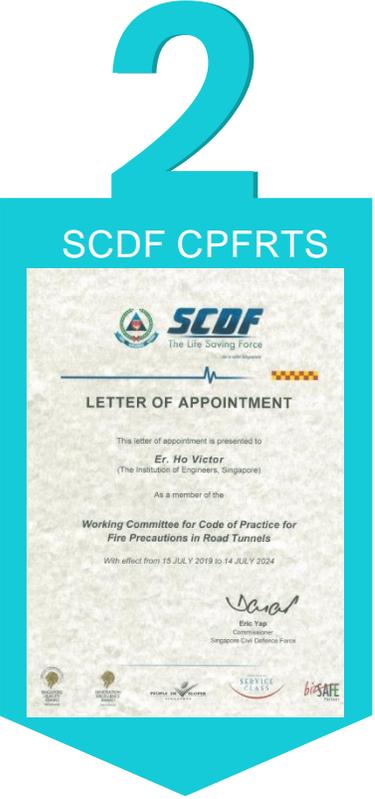
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ISO 9001:2015



HiLT Pte Ltd is ISO certified and registered with the Professional Engineers Board (PEB) as a multi disciplinary consultancy firm with a focus in fire engineering (valid professional indemnity of S\$5 Million). We are also a registered Fire Safety Engineer and Inspector licensed firm with SCDF.

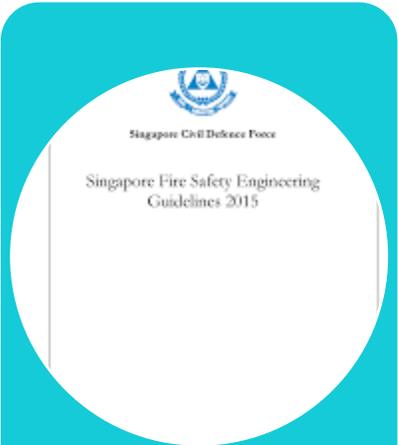
APPOINTMENT AND AWARDS



We are an award winning firm for fire safety design and also contribute to the global fire engineering community by attending conferences and presenting papers (Lisbon, 2018, Jakarta SFPE Conference, 2017 etc.).

We have also been involved in the development of both local and international fire safety codes. We are actively improving existing codes and also actively participating in the development of new codes for new technologies.

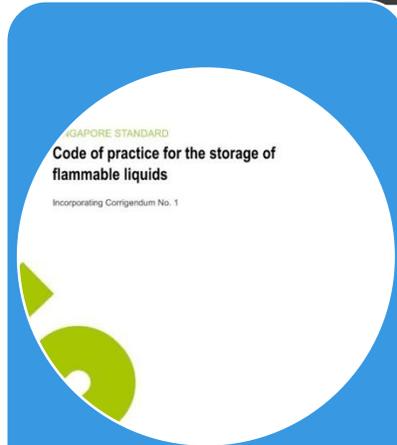
CODE DRAFTING APPOINTMENTS



Singapore Fire Engineering Guidelines



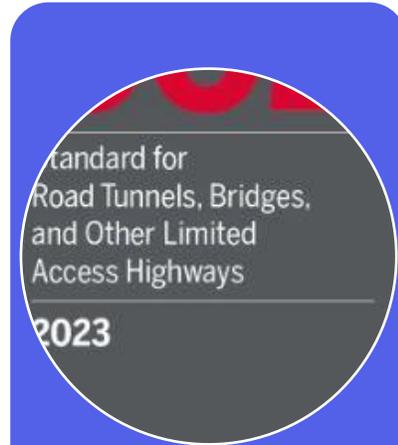
SS 634 Code of practice for fire safety for open plant processing facilities in oil, chemical and process industries



SS 532 Code of Practice for the Storage of Flammable Liquids



SCDF Fire Code



Code of Fire Precautions in Road Tunnels



UL 9540A Battery Energy Storage System (ESS) Test Method



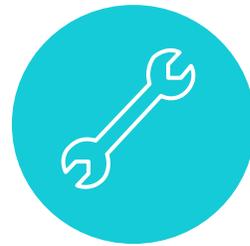
About Us

We Provide The Following Core Engineering Services



Fire Safety Engineering

Performance based solutions, fire engineering assessment, CFD simulation



Fire Protection Design

Engineered Smoke Control Systems, Tunnel Water Mist Systems, Foam Systems, Clean Agent Systems, Automatic Sprinklers



Inspection

Registered Inspector (SCDF) services, Fire Cert Renewals, Testing and Commissioning for Fire Protection Services



Fire Life Safety

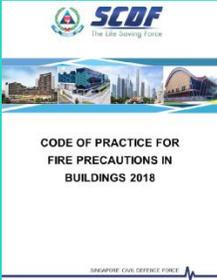
Holistic review and documentation of transit projects



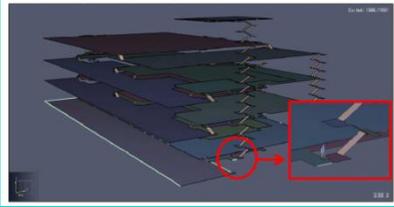
Civil & Structural Engineering

Cost effective C&S design honed from our years of designing for high tech factories and structural fire engineering for steel and timber buildings

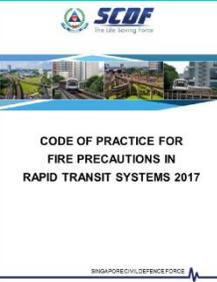
FIRE SAFETY ENGINEERING



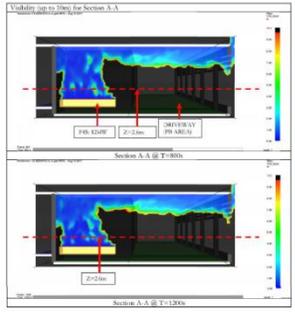
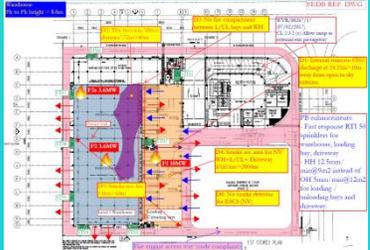
Preparation of Fire Engineering Reports (FEDB, FSER, FEA, OMM, PRR)



Fire Safety Engineer (FSE) & Professional Engineer (PE) endorsement and witnessing of hot smoke tests



Identify deviations from Fire Code suitable to be addressed via fire engineering



Computational Fluid Dynamics (CFD) and evacuation analyses

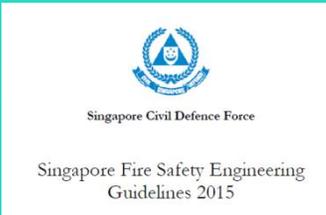
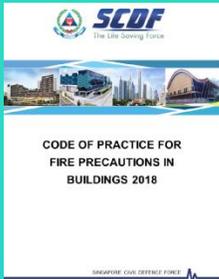


We take an active approach in helping clients to identify deviations from the prevailing Fire Codes and advise on all possible mitigation measures along with the pros and cons in order to facilitate their decision making.

We demonstrate our proficiency in fire engineering principles by preparing performance-based fire engineering reports from the start of the development of design brief up till the closure of the Authority's performance-based audit.

We validate our performance-based fire engineering design by supervising the conduct of testing & commissioning procedures (e.g. hot smoke tests) and brief clients on the future maintenance and operation procedures even after the building has been commissioned

FIRE LIFE SAFETY

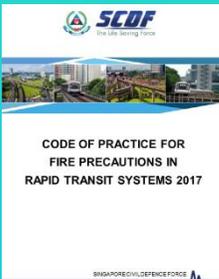


Fire & Life Safety Report (FLSR)

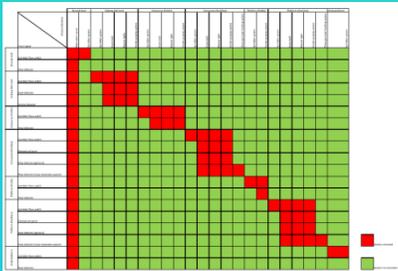


Computation Fluid Dynamics (CFD) simulations for tenability studies & smoke recirculation studies

Qualified Person / Professional Engineer / Fire Safety Engineer endorsements



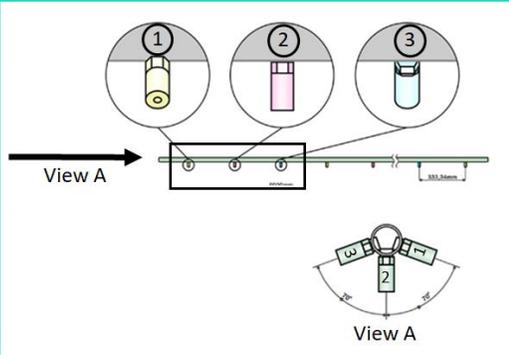
Plan audits, identify deviations from codes, recommend solutions



We are well versed in fire codes and standards for buildings, rapid transit systems and tunnels. We are typically involved from preliminary concept stage to commissioning of building. We review the designs of all active and passive fire and life safety systems with due diligence and scrutiny so as to meet the objectives of the codes and ensure an adequate level of safety for the intended occupants.

We are also actively involved in the fire and life safety aspects of numerous transit infrastructure projects (ranging from transit stations, bus terminals and train depots). We are well versed with the operations of these infrastructure developments and we combine our fire engineering knowledge effectively using CFD simulation tools to demonstrate tenability within the premises / ensure no smoke recirculation into premises.

SPECIALISED FIRE PROTECTION DESIGN



Water Mist Fire Fighting Systems

Large Scale Tunnel Fire Testing & Tunnel Fire Safety Design



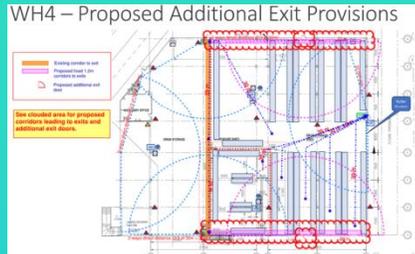
Battery Energy Storage System (BESS) Fire Safety Design

Flammable storage & Synthetic Fire Fighting Foam system (SFFF)



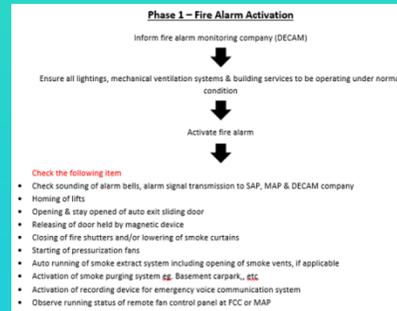
We are involved in projects as part of an international team of experts for specialized fire protection systems such as water mist fire protection system. We have experience in conducting fire tests with accredited laboratories to valid fire protection systems. We are involved in the fire safety design for train / road tunnel projects on an international scale and our expertise range for all possible ranges of vehicles from motorbikes, diesel / electric cars, diesel / electric buses / general goods vehicles etc. We are actively involved in the fire safety aspects of recent global trends, such as the adoption of BESS as an alternative traditional fossil fuels and the adoption of SFFF as an alternative to the traditional AFFF for flammable substances.

INSPECTION



Conduct fire audits for approved plans for both active and passive fire safety systems

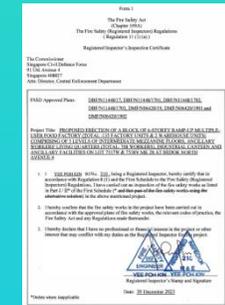
Conduct of site inspections and testing for active fire safety systems



Name of Building		Date of Inspection		
		Site	No.	Remarks
2. MEAN OF ESCAPE				
A. General				
1. Capacity of main exit and building comply with				
2. Travel distance for one way and two way escape is complied with				
3. Exit doors are clearly open before in the direction of escape				
4. Two independent exit stairs are provided (except existing building every storey)				
5. Exit are clearly visible, indicated and unobstructed				
6. Exit, exit door and other exit facilities must clear the minimum width requirement as specified under Table 2.24				
7. Building of maximum 4 storeys for basement to ground floor approach and outside step facility. Requirements for exit staircase are complied with				
8. Verification opening must meet the 10% of floor area and area not located not more than 10m from lobby				
9. There are no prohibited openings within 1.5m horizontally and 1.8m vertically below any opening in the external wall of the internal exit staircase				
10. There are no prohibited openings within 1.5m horizontally and 1.8m vertically from any part of external exit staircase				
11. Fire doors are self-closing body doors				
12. Self-closing device or ground floor directly into a safe exterior walkway (not to be) for upper storeys (not to be)				
13. Maximum 50% of the total number of exit staircase is allowed to be designed to meet minimum criteria				
14. Exit doors and exit stairs doors open in the direction of exit/ward				
15. Exit width is not less than 1.0 metres				
16. Maximum clear width of exit door is more than 800mm				
17. Exit door is not self-closing				
18. Self-closing device is provided				
19. Self-closing device is provided				
20. Fire door provided with floor door for protected stair shafts (Open height door must be controlled for protected stair shafts)				
21. Fire door provided with floor door for protected stair shafts (Open height door must be controlled for protected stair shafts)				
22. Fire door provided with floor door for protected stair shafts (Open height door must be controlled for protected stair shafts)				
23. Fire door provided with floor door for protected stair shafts (Open height door must be controlled for protected stair shafts)				
24. Fire door provided with floor door for protected stair shafts (Open height door must be controlled for protected stair shafts)				
25. Fire door provided with floor door for protected stair shafts (Open height door must be controlled for protected stair shafts)				
26. Fire door provided with floor door for protected stair shafts (Open height door must be controlled for protected stair shafts)				
27. Fire door provided with floor door for protected stair shafts (Open height door must be controlled for protected stair shafts)				
28. Fire door provided with floor door for protected stair shafts (Open height door must be controlled for protected stair shafts)				
29. Fire door provided with floor door for protected stair shafts (Open height door must be controlled for protected stair shafts)				
30. Fire door provided with floor door for protected stair shafts (Open height door must be controlled for protected stair shafts)				

Conduct of site inspections for passive fire safety systems

Issuance of registered inspector forms 1 / 2 for TFP / FSC application



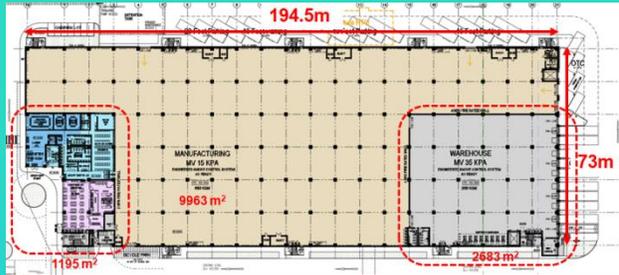
As we continuously and actively involved in the design of both prescriptive and performance-based fire safety systems, we are technically proficient in conducting comprehensive site inspections and commissioning tests for fire safety systems.

We establish ourselves differently by actively advocating for an early intervention approach; we always advise our clients / consultants to submit their fire safety system plans early to the authorities so that we can inspect on the approved fire safety plans early.

The earlier we identify problems / deviations, the earlier the project stakeholders can intervene and make amendments / alterations / additions.

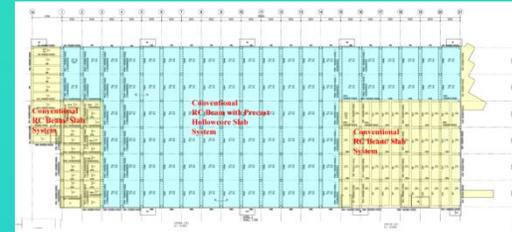
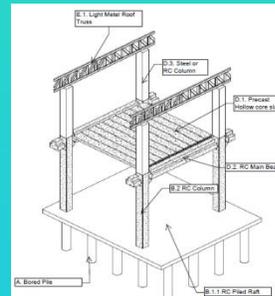
We believe in helping our clients to avoid unnecessary Variation Orders (VOs) and in achieving Temporary Fire Permits (TFPs) or Fire Safety Certificates (FSCs) punctually, while fully meeting the fire safety objectives of the local authority.

CIVIL & STRUCTURAL ENGINEERING



Understanding clients' structural needs

Proposed structural system to suit project requirements



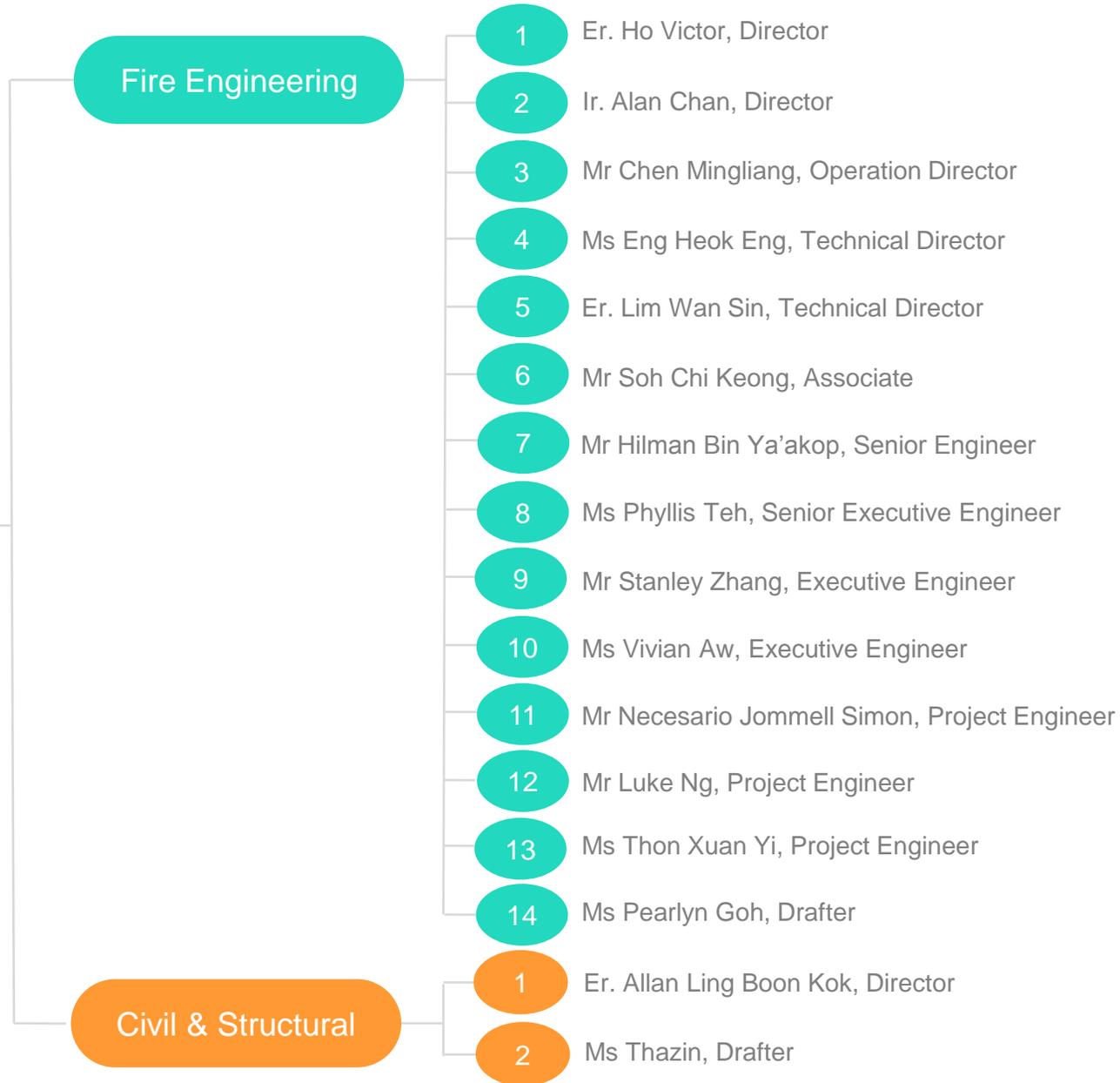
Detailed Structural Analysis and Design

Authority Submission and Preparation of Construction Drawing Leading to Final TOP



Apart from refining our processes honed from years of designing for high-tech factories, our structural team is also well-versed in structural fire engineering for steel and Mass Engineered Timber (MET) buildings.

ORGANIZATION CHART



Administration

- 1 Ms Tay Ming Yan
Admin Manager
- 2 Ms Law Chieu Shie
Admin Officer

Accounts

- 1 Mr Yap Kok Leong
Accounts Director

MEET OUR TEAM

FIRE ENGINEERING

**HO VICTOR**

Founder, Director
P.Eng. (Mech.), QP
(Mech.),
Reg. FSE, Reg. Insp.
(SCDF), DfSP
Industry experience:
28 years

**ALAN CHAN**

Director
PE, FSE (Malaysia),
CFPS, ACPE, APEC,
Int. PE (MY)
Industry experience:
17 years

**LIM WAN SIN**

Technical Director
P.Eng. (Mech.), QP
(Mech.), Reg. FSE, Reg.
Insp. (SCDF), MIES,
M.I.E.M, MASHRAE,
MSFPE
Industry Experience:
45 years

**ENG HEOK ENG**

Technical Director
MSFE, BA (Arch
Studies)
Industry Experience:
19 years

**CHEN MINGLIANG**

Operation Director
BEng Chem. Eng. (NTU)
MEng. Fire Engineering
(Maryland, USA)
Industry experience:
11 years

MEET OUR TEAM

FIRE ENGINEERING

**SOH CHI KEONG**

Associate
BEng Mech. Eng
(NTU)
Industry experience:
11 years

**HILMAN BIN YA'AKOP**

Senior Engineer
BEng Mech. Eng (NUS)
MSc. (Integrated
Sustainable Design)
(NUS)
Industry experience: 13
years

**PHYLLIS TEH**

Senior Executive Engineer
BEng Mech. Eng (NTU)
MSc. Fire Engineering
(Hong Kong)
Industry experience:
6 years

**STANLEY ZHANG**

Executive Engineer
BEng Mech. Eng (NUS)
Industry Experience:
7 years

**VIVIAN AW**

Executive Engineer
BEng CAD CAM
(UM)
Industry Experience:
3 years

MEET OUR TEAM

FIRE ENGINEERING



NECESARIO JOMMELL SIMON

Project Engineer
BEng Mech. Eng
(NTU)
Industry experience:
2 years



LUKE NG

Project Engineer
BEng Mech. Eng
(NTU)
Industry experience:
2 years



THON XUAN YI

Engineer
BEng Mech. Design &
Manufacturing Eng
(SIT)
Industry experience:
1 years



PEARLYN GOH

Drafter
Dip. Mech, Eng (SP)
Industry experience:
28 years

MEET OUR TEAM

STRUCTURAL ENGINEERING



LING BOON KOK, ALLAN

Founder, Director
P.Eng. (C&S)
Industry experience:
28 years



THAZIN

Drafter
BEng. Civil Eng. (Mandalay)
Industry Experience:
13 years

MEET OUR TEAM

ACCOUNTS & ADMINISTRATION



TAY MING YAN
Admin Manager



LAW CHIEU SHIE
Admin Officer

PORTFOLIO SHOWCASE

F&N Warehouse @ Tuas
 Logos Penjuru Logistics Centre
 Hup Hin Warehouse
 CWT CSRS Warehouse
 Soilbuild Integrated Precast Hub
 Carros Centre CarHub
 NTUC Logistics Hub
 Ascendas Food Exchange
 Bedok Food City
 Defu Industrial City
 AIMS AMP Warehouse
 Hup Hin Warehouse
 Pokka Warehouse
 Logos Ehub
 2PS1 @ Pionner Sector
 Star Furniture @ Sugnei Kadut
 Foodfab @ Mandai

INDUSTRIAL

Mapletree Logistics Hub
 3M Tuas Facility
 3M Woodlands Facility
 Facebook Data Centre (Sunview)
 Rolls Royce Red Dot Facility
 Seasl Warehouse
 Tetrapak Warehouse
 Oxley Bizhub 1 & 2
 Cogent Logistics Warehouse
 Coca-Cola Pacific Foods ASRS
 CT Hub 1 & 2
 Tagore 8 & 9
 CT Foodchain
 CT Foodnex
 LTH Logistics
 Resmed Faciliy
 Wuxi Bio Facility

INDUSTRIAL

Dubai Palm Jumeirah LRT
 Teck Ghee – N109A MRT
 Jurong East – J110 MRT
 Thomson Line Stage 2 & 3
 Tai Seng Depot
 Bishan Depot
 Klang Valley MRT
 Klang Valley MRT - Serdang -
 Putrajaya - Ph2 Eastern Corridor
 Railway Link
 High Speed Rail KL-SG
 Klang Valley LRT 3
 P103 Riveria Station
 C810 Sengkang Depot
 CR3005 CRL3 Train & Bus Depot
 P105 Punggol Interchange Station
 J111 Tukang Station

**TRANSPORT AND
 INFRASTRUCTURE**

Changi Airport T3
 Integrated Test Train Centre
 Seletar Airport
 Brunei International Airport
 Kuala Lumpur International Airport
 Clark International Airport
 Changi Airbase Hangar
 CTE & KPE Road Tunnel
 HT Cable Tunnel Pandan-Jurong
 HT Cable Tunnel Tuas-Pioneer
 Marina Bay Cruise Centre
 CR112 Hougang Station
 CR110 Train Tunnel @ Tamp
 CR115 Tavistock Station
 CR107 Pasir Ris East Station
 CR205 King Albert Park Station
 CR208 Clementi Station

**TRANSPORT AND
 INFRASTRUCTURE**

PORTFOLIO SHOWCASE

The Hive @ NTU
 NTU ABS MET Building
 National Art Gallery
 National Museum of Singapore
 Supreme Court of Singapore
 Kranji Camp
 Nee Soon Camp
 Home Team Tactical Centre Kranji
 Dulwich International College
 Temasek Polytechnic
 Kim Chuan Dormitory
 Tampines Columbarium
 Family Justice Court
 Nirvana Columbarium
 Loyang Cresecent Dormitory

**INSTITUTIONAL/
GOVERNMENT**

Outram Community Hospital
 Singapore General Hospital
 Nursing Home @ Geylang
 Nursing Home @ Tampines
 Nursing Home @ Choa Chu Kang
 National Skin Centre
 National University Hospital
 Sengkang General Hospital
 Mount Alvernia Hospital
 Mount Elizabeth Hospital
 St. Andrew Community Hospital
 Elective Care Centre
 National Dental Centre

HEALTHCARE

The Capitol
 Marina One
 Paya Lebar Quarters
 Orchard Centrepoint
 Orchard Paragon
 Fraser Tower
 Northpoint City
 Millenia Walk
 NS Square
 Wisma Atria
 Punggol Digital District
 NS Square
 Bugis Village
 Woodlands Civic Centre
 AMK Hub

COMMERCIAL & RETAIL

Coliwoo Hotel Amber
 Coliwoo Balestier
 Grand Hyatt
 Pan Pacific
 Millennium Hotel Jakarta
 Millenium Hotel Manila
 Shangri-La Phnom Penh
 Gardens By the Bay
 Regent Hotel
 Hilton Hotel
 Somerset Livenation
 Regent Hotel
 Hilton Hotel
 Kesa House
 Somerset Apartments

HOSPITALITY/TOURISM

PORTFOLIO SHOWCASE

PNB 118 Kuala Lumpur
Signature Tower Kuala Lumpur
The Peak Phnom Penh
The Bridge Phnom Penh
V On Shenton
Alexandra View
Anchorvale Condominium
The Landmark
Sloane Residences
Bidadari C6 / C7
Lorong Melayu Condominium
Urbanville @ Woodlands
Alkaff Oasis

**SUPER HIGH RISE/
RESIDENTIAL**

Singspring Desalination Plant
Tuas
PUB Tuas Desalination Plant
Changi Water Reclamation Plant
Tuas Water Reclamation Plant
Integrated Waste Management
Facility (IWMF)

ENVIRONMENTAL

Shell Project Houdini
Tanjong Bin Oil Terminal
Universal Oil Terminal Hub
Chevron Terminal Hub
3M Woodlands Facility
3M Tuas Facility
Pacific Refreshments Facility
Logos Tuas Logistic Hub
City Square Mall
Kuehne & Nagel @ Pioneer
Bio-Rad Facility
ITE College West
CR112 Hougang Station

**OIL & GAS & FLAMMABLE
STORAGE**

BESS
Sembcorp Jurong Island BESS
Expansion @ Banyan
Sembcorp Jurong Island BESS
Expansion @ Sakra
Capitaland BESS Expansion
Green Tenaga – BESS installation
Advancer System Technology –
BESS installation & product
Development

SOLAR PV
LTA – J111 Solar PV
Union Solar
Solar Horizon

**SOLAR/ BESS/ RENEWABLE
/SUSTAINABLE ENERGY**

PORTFOLIO SHOWCASE

Pfizer Asia
Global Foundry
Tengah Airbase
Tuas Power

Ongoing :
Siltronic Wafer Plant
GSK Benoi
Changi Airbase
Amgen Singapore Manufacturing
CMC Materials
Kuraray

PFAS FOAM TRANSITION

SOME OF OUR CLIENTS



The Hilt logo is displayed in a white box with a blue underline. The letters 'H', 'I', and 'L' are in a bold, blue, sans-serif font, while the 'T' is in a lighter blue, sans-serif font.

THANK YOU

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