



G&P M&E

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Company Background

G&P Professionals

G&P M&E is a 100% locally owned Malaysian company, being part of the G&P Professionals Group, which is a multi-disciplinary engineering consulting firm. The Group renders a wide range of quality engineering services:

1. G&P Geotechnics
2. G&P Structures
3. G&P Infra
4. G&P Maritime
5. G&P Claims & Contract
6. G&P Project Management
7. G&P Water
8. G&P R International (Cambodia)
9. G&P Highways & Transportation
10. G&P Dams Water Services
11. G&P Professionals (Sarawak)
12. NGI – G&P
13. ZED – G&P
14. G&P Water (Singapore)
15. G&P Professionals (Sabah)
16. G&P R&D
17. G&P M&E
18. G&P Special Structures



The Group was formed in early of 21st century and is currently one of the leading consulting engineering practices in Malaysia. We provide high quality engineering solutions to embrace the increasing demands and adversity of the challenging developments. It is our policy to enhance the efficiency and value-adding services to dedicate the best possible endeavour in our engineering profession. Along with the effort to build a strong reputation for providing innovative, cost effective and state-of-the-art solutions, Research and Development (R&D) becomes one of the main core activities to sustain our services at the forefront of the world trends.

Our Mechanical and Electrical engineering services primarily encompass planning, design, principal consultancy and project implementation. These services provide major inland developmental aspects in residential, industrial and commercial, as well as infrastructure projects such as roads, highways, bridges, marine works, water supply, sewage systems, hydrology and drainage, solid waste disposal, power generation and telecommunication.

The firm, to its credit, is proud with its impressive track record of design, documentation and construction implementation of numerous major projects in Malaysia. We believe the underlying success of engineering and ever-evolving technology is the knowledge advancement.

Company Background

G&P M&E

G&P M&E Sdn Bhd was founded to provide state-of-the-art integrated and coordinated mechanical, electrical, plumbing and fire protection consulting engineering and building commissioning services.

Our experienced staffs examine alternative solutions and provide proven and responsive air conditioning and mechanical ventilation, electrical, plumbing and fire protection engineering design for state-of-the-art facilities. We are able to handle large scale and complex projects from inception to construction completion, in their entirety. As well as provide feasibility of alternative layouts and are a proactive participant in value engineering, early in a project.

G&P M&E has Green Building Index (GBI) certified facilitator on his staff and a proponent of Sustainable / Green Design Concepts. Many staff engineers are GBI or Green Mark certified Facilitators and as a firm we are involved in many projects that are pursuing GBI or Green Mark Certification.

We utilize AutoCAD REVIT MEP 2010 for Building Information Modelling and 3D Design for collision detection and 3D Design Review.



Technical Team

With high caliber team of mechanical and electrical engineers in the business, all technical and administrative teams maintain their high level of expertise as a result of a commitment to continuous professional development and its open-plan offices are carefully designed so that best practice can be freely shared between consultants.



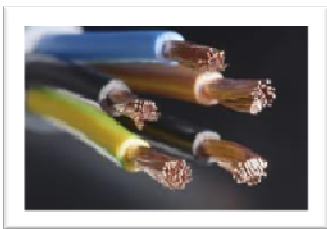
Engineering Services

With every client, G&P M&E begins with an initial client consultation and facility-prequalification to establish client objectives and determine financial criteria for a project.

We provide engineering and design as an owner's agent, or total turn-key services for design build project installation. In all cases G&P M&E offers clients a wide range of services to address their specific needs.

Mechanical incorporates the following services:

- ACMV (Air Conditioning and Mechanical Ventilation)
 - Air conditioning
 - Smoke exhaust and ventilation
- Plumbing System
 - Domestic water supply and distribution
 - Waste / sewage water disposal and treatment
 - Hot water supply and distribution
 - Steam generation and distribution
 - Compressed Air and Gas distribution system
- Fire Protection System
 - Hydrant & sprinkler, hose reel & wet riser
 - Portable fire extinguisher
 - Fire detection / alarm system
- Vertical Transportation
 - Lifts and escalators
- Waste collection system
 - Gravity chute
 - Full vacuum



Electrical incorporates the following services:

- Power distribution through out the building
- Standby power generation
- General lighting and receptacle plan
- Lightning protection
- Building automation system
- Telephone installation plan
- Structured data cabling
- Background music and PA system
- MATV & CCTV system
- Access control & security system



Engineering Services

Value Added Offering

Beyond broad spectrum engineering design and complete construction administration services, G&P M&E has some unique additional capabilities:

Commissioning

At G&P M&E, we believe commissioning should be involved in every stage of the project in order to deliver an excellent operating facility. Commissioning helps guarantee quality of construction and functional performance from programming and schematic design through the long term operation of the facility. Fundamental building system commissioning is a green building prerequisite.

Green Building Consulting - Green Building Index, Malaysia / Green Mark, Singapore

We provide full service of Green Building Index facilitating and documentation with our GBI facilitators. GBI is a widely use Rating System developed by Malaysia Green Building Council that forms a national standard for developing high performance, sustainable buildings.

Energy Audit and Use Analysis

We work with owners to assess the energy performance of both existing and proposed facilities. With existing buildings, we are able to monitor and evaluate present energy usage and make recommendations. For proposed designs, we use a dynamic computer model to forecast energy consumption and life cycle cost for all building types, with the ability to compare various alternates to a baseline.

Computational Fluid Dynamic (CFD)

With the state-of-the-art computing facilities, we deliver reliable solution within a short period of time for a wide range of engineering applications in the Building Services industry; Building Aerodynamics & Wind Engineering, Fire & Safety and Air Conditioning & Industrial Ventilation. Appropriate modeling approach to meet specific Client's requirement is assured, with complete CFD investigation which leads to the selection of suitable performance-based engineering design concepts & solutions, providing our client with unparalleled competitive advantage.

AutoCAD Revit MEP

It provides mechanical, electrical and plumbing (MEP) engineers and drafters with the tools to design even the most complex building systems. Revit supports Building Information Modelling (BIM), help drive accurate draft, design, analysis, and documentation of more efficient building systems from concept through to construction. Use information-rich models to support building systems design throughout the building lifecycle. It decrease coordination issues, save time spent on repetitive tasks, and deliver projects faster with higher quality documentation.



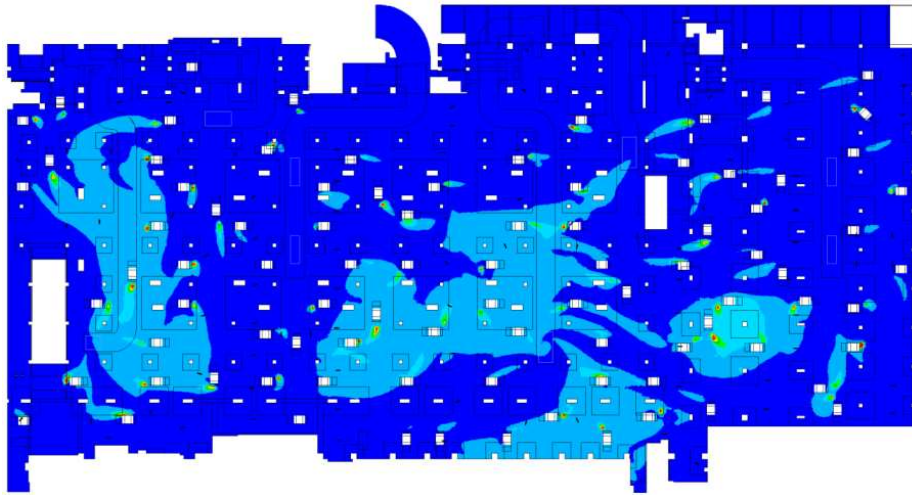
Engineering Services

CFD Benefits

- INSIGHT – helps to virtually crawl inside a system or device and see its performance
- FORESIGHT – predicts and tests the performance of a system or device under many configuration until arrive at an optimal result prior to physical works or prototyping
- Efficiency – help to design a better and economical system or device and hence leads to design enhancement without cost, expenses or physical disruption

Engineering Services

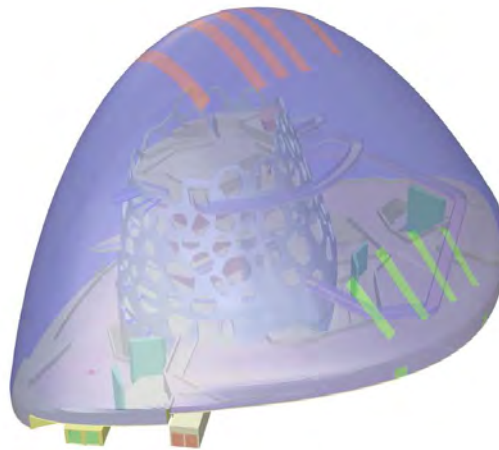
CFD Application – Car Park Ventilation



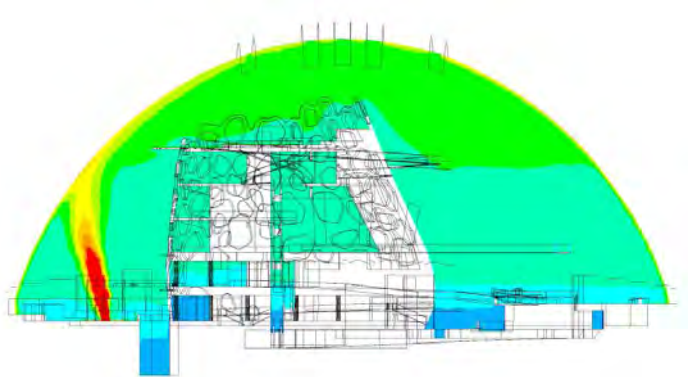
Carbon monoxide concentration contours in car park basement 3 at steady state
(RED = High Concentration, BLUE = Low Concentration)

Engineering Services

CFD Application – Fire Safety Assessment



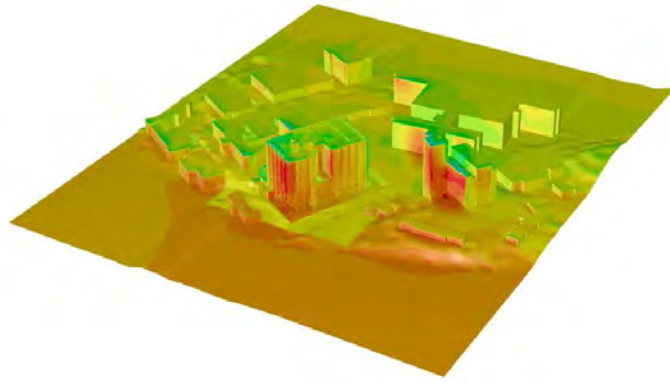
Computational model for conservatory



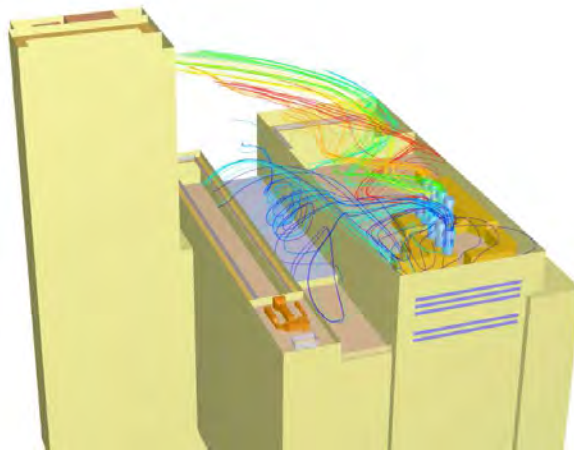
Temperature contours about fire source at time = 12 minutes
(RED = High Temperature, BLUE = Low Temperature)

Engineering Services

CFD Application – Building Aerodynamic and Wind Engineering



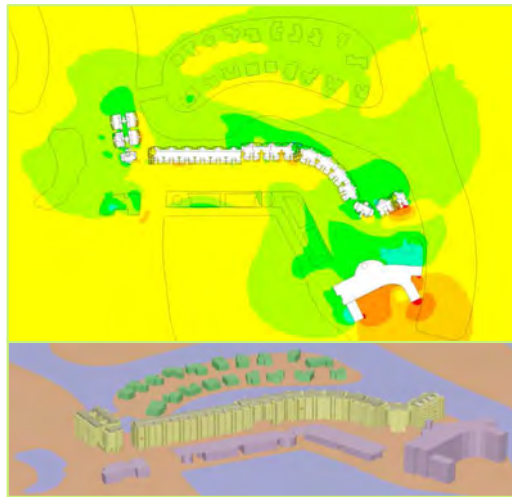
Surface pressure contours on building & terrain due to wind loading
(**RED** = High pressure, **BLUE** = Low pressure)



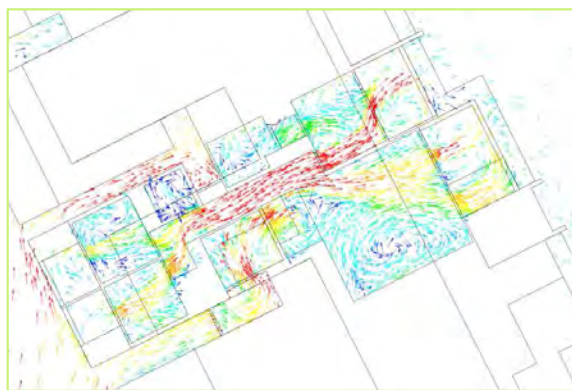
Particle trajectory from exhaust plume fans indicating entrainment of contaminant into building roof area and air Intakes due to wind gust

Engineering Services

CFD Application – Building Aerodynamic and Wind Engineering



Pressure contours on residential development due to south wind
(**RED** = High pressure, **BLUE** = Low pressure)

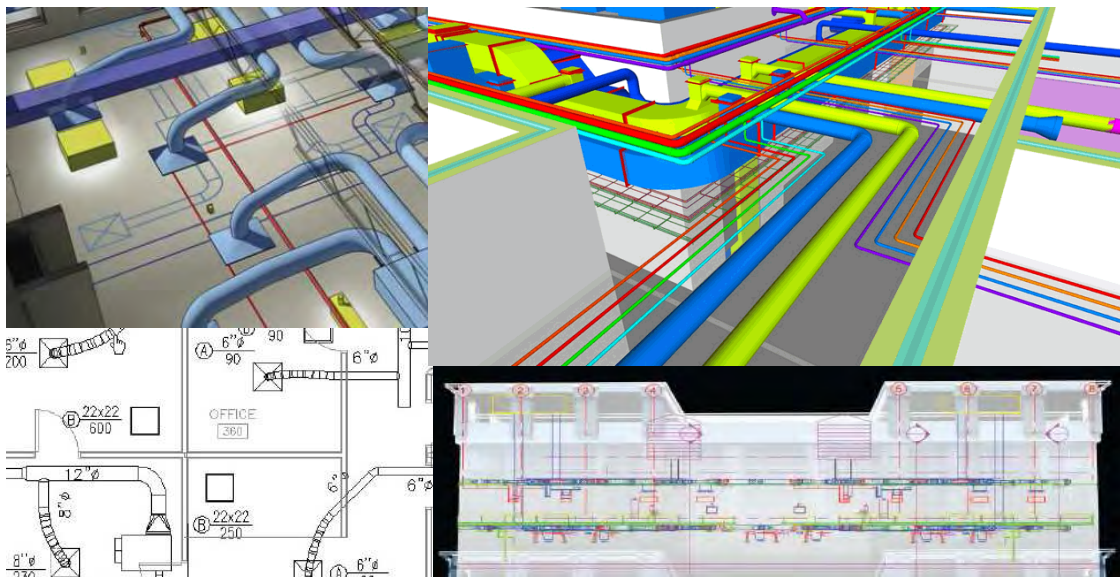


Air velocity vectors in residential apartment due to south wind
(**RED** = High speed, **BLUE** = Low speed)

Engineering Services

AutoCAD MEP Application

- More accurate designs
- Coordinate design information
- Effective collaboration
- Schematic design
- Fabrication for MEP contractors



Projects

Commercial

- **FFM FACTORY** (Kajang) food processing factory
- **VOLKS WAGEN SHOW ROOM**, Jalan Kapar, Klang
- **BIZ SUITE** (Kota Kemuning) 3 levels basement car parks, 3 levels retails & 7 levels offices
- **JAMBUK ESTATE** (Kalimantan Timur, Indonesia) flood mitigation
- **VALE IRON ORE DISTRIBUTION PLANT** (Manjung, Perak) submission engineer and peer review
- **KLIA** (Sepang) waste collection center
- **CUSTOM, IMMIGRATION & QUARANTINE, CIQ** (Melaka) state government CIQ
- **SOHO** (Sri Hartamas) 3 levels basement car parks, 2 blocks 11 levels service apartment & SOHO
- **IMPIANA HOTEL** (Kuching, Sarawak) 38 storeys 5 star rating hotel
- **KUALA LUMPUR GOLF & COUNTRY CLUB** (Kuala Lumpur) upgrading of club house facilities for buggy shelter, function room, banquet hall, karaoke, show room, badminton hall & tennis court
- **KUALA LUMPUR CONVENTION CENTER** (Kuala Lumpur) multi-facilities center for exhibition hall, meeting rooms, function hall, banquet hall, auditorium, plenary hall & kitchen
- **MINISTRY OF FINANCE, MOF** (Putrajaya) central government multi level office
- **SUNWAY PYRAMID HOTEL** (Sunway) multi storey hotel
- **SUNWAY MONASH UNIVERSITY** (Sunway) Monash campus with radiant cooling system

Notes : The above project reference list are extracted from both company and company's principal experiences.



Projects

Residential

- ◉ **UKAY HEIGHTS** (Ampang) *6 unit high end bungalows*
- ◉ **KENNY HILLS** (Damansara Heights) *5 unit high end bungalows*
- ◉ **JADE HILLS** (Kajang) *infrastructure design of residential project*
- ◉ **TANJONG TOKONG SEMI-D** (Tanjong Tokong, Penang) *4 unit semi-detached house*
- ◉ **DUTA SURIA** (Ampang) *18 storey (252 Units) Luxury condominium*



Projects

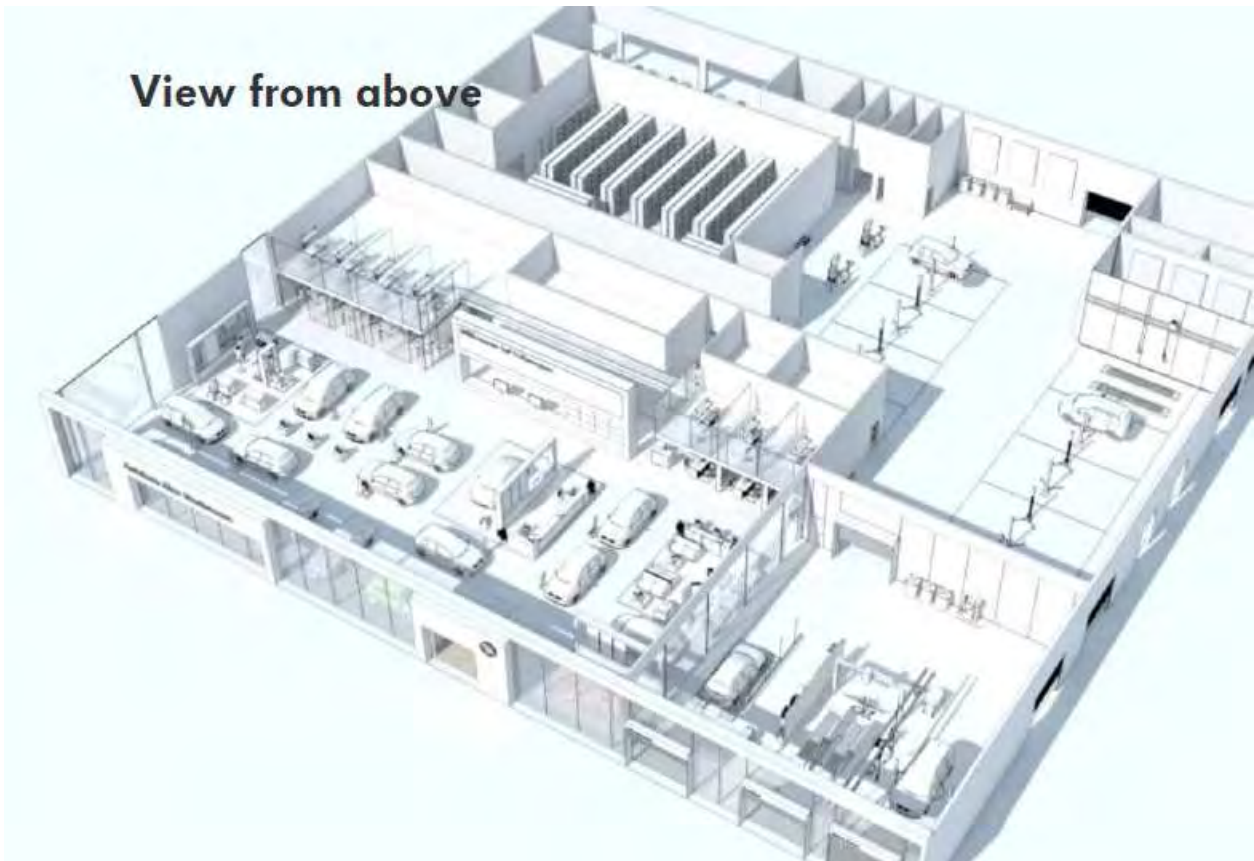
Green Building Index

- **AURORA TOWER** (Kuala Lumpur) *certified rating*
- **CENTRAL RESIDENCES** (Sungai Besi) *certified rating*
- **RICHMOUNT** (Mon't Kiara) *certified rating*
- **ROYALE RESIDENCES** (Jalan Yap Kuan Seng) *gold rating*

Commercial Projects

VW Show Room

View from above



Commercial Projects

Biz Suites (Kota Kemuning)



Commercial Projects

CIQ Malacca



Commercial Projects

Kuala Lumpur Golf & Country Club (KL)



Commercial Projects

Impiana Hotel (Kuching, Sarawak)



Commercial Projects

SOHO (Sri Hartamas)



Commercial Projects

KLCC Convention Center (KL)



Commercial Projects

2G5 & 2G6 (Putrajaya)



Commercial Projects

MB Square



Commercial Projects

Subang Square (Subang)



Commercial Projects

Trader Hotel



Residential Projects

Duta Suria



GBI Projects

Royale Residences (Kuala Lumpur)

