G&P DIGEST

Issue 10: October 2017



2nd Line

Detailed Design Consultancy Services for Tunnel and **Underground Works**

Cyberjaya City Centre (CCC), Cyberjaya

Queens Waterfront, Penang

Waterfront Development

Bund Storage Scheme, Sg Linggi, Negeri Sembilan



Involvement in KVMRT Line 2

KVMRT Sg. Buloh-Serdang-Putrajaya (SSP) Line

Introduction

G&P Professionals Sdn Bhd is involved in the detailed design for tunnel and tunnel ancillary structures for underground works from Jalan Ipoh North Escape Shaft to Desa Water Park South Portal, along the MRT SSP Line.

The underground works were distributed into a few packages with G&P involvement under work packages **DDC3** and **DDC7**.

(DDC - Detailed Design Consultancy)

DDC3

G&P Professionals Sdn Bhd was appointed by AECOM Malaysia (Lead Design Consultant of KVMRT-SSP) as Detailed Design Consultant for design package DDC3.

In brief, the design package comprises specifically of, but not limited to, the followings:

- Approximately 13.5km (per bore) of twin tunnels;
- Modification, integration and connections to existing and planned rail networking, transit oriented development, concessionaires, adjacent development and infrastructures,
- Integration and connections to possible future developments, external and reinstatement works;
- Tunnel ancillary structures;
- > Two intermediate ventilation shafts (IVS);
- Three escape shafts (ES);
- TBM launch and retrieval shafts;
- Transition structures to and including the South Portal;
- Cross passages and tunnel sumps.

DDC7

Other than tunnelling and tunnel ancillary structures, G&P is also involved in underground station design package in SSP Line. G&P Professionals Sdn Bhd was appointed by CECI Engineering Consultants Malaysia Sdn Bhd (a member of CECI Engineering Consultants, Inc., Taiwan) as Detailed Design Consultant for all temporary works of DDC7.

This design package consists of three underground stations namely:

- Conlay Station (CLYS),
- · Chan Sow Lin Station (CSLS) and
- alteration & addition works to existing Chan Sow Lin LRT Station.

KVMRT (SSP Line) Line 2

The line will serve a corridor with a population of around 2 million people stretching from Sungai Buloh to Putrajaya. The proposed alignment is 52.2km long of which 13.5km is underground. A total of 37 stations, 11 of them underground, will be built. At commencement of full service in the second quarter of 2022, the SSP Line is expected to have a ridership of 529,000 passengers per day. This is expected to further improve the traffic condition around Kuala Lumpur.



Achievement in KVMRT Line 1

KVMRT Sg. Buloh-Kajang (SBK) Line

2011-2017







Cochrane Station







Tun Razak Exchange Station







Maluri Station







Maluri South Portal







Kampung Pandan Escape Shaft

"Line 1 design works started in 2011 and physical construction works started in early 2012 at Cochrane Station. Excavation in karstic limestone formation up to 45m below ground at TRX Station is one of the challenges of the project. Excavation underneath heavily trafficked road at Maluri Station and Crossover have created additional difficulty to the works. Proper geotechnical inputs and continuous technical support during construction were needed to ensure construction was carried out safely, timely and successfully. In 2017, 3 underground stations with G&P involvement were officially open to the public and we as part of the design team are proud of the achievement of the project."



Ir. Koo Kuan Seng (Project Engineer)



Figure 1: Overall Master Plan of Cyberjaya City Centre

G&P M&E Sdn Bhd was engaged by Cyberview Sdn Bhd to provide M&E, air conditioning and mechanical ventilation consultancy services for the proposed Plot P: High rise hotel and convention center mixed development and Plot O: Two towers of service apartment and IT mall.

The site is located at Persiaran Apec, Cyber 3, Cyberjaya near Lim Kok Wing University and accessible by major highway including the Maju Expressway (MEX).

Plot P and Plot O are part of the Cyberjaya City Centre Master Development, which consists of 16 Plots from Plot A to Plot P. This major project is divided into two phases, namely Phase 1 (50.94 acres) and Phase 2 (45.91 acres). Plot P is considered to be the first project of Phase 1 followed by Plot O, Plot M, Plot K, Plot G, Plot J, Plot I and Plot H. The remaining plots will be under Phase 2 and will only commence upon the completion of Phase 1.



Figure 2: Building Model of Plot P and Plot O



Figure 1: Overall Master Plan of Queens Waterfront

Queens Waterfront

is a nautical-inspired waterfront development on reclamation land. It comprises 4 phases of resort-inspired condominium - Queens Residences Q1 - Q4 with signature commercial area (waterfront alfresco), a marina bay, an international sports center (Queens Sports Center) and an international school. The proposed site is located near Queensbay Mall, Penang, and can be accessed via Persiaran Bayan Indah.

G&P was engaged as the geotechnical consultant to carry out geotechnical design for the land reclamation project. The total area of the proposed land reclamation is about 25 acres.



Figure 2: Site Photo: On-going Land Reclamation Works

G&P's work scope is to address geotechnical issues such as settlement and stability of the reclamation fill on soft ground and to provide geotechnical design options for the land reclamation works and earth retaining system.

Bunded Storage

Linggi, Negeri Sembilan

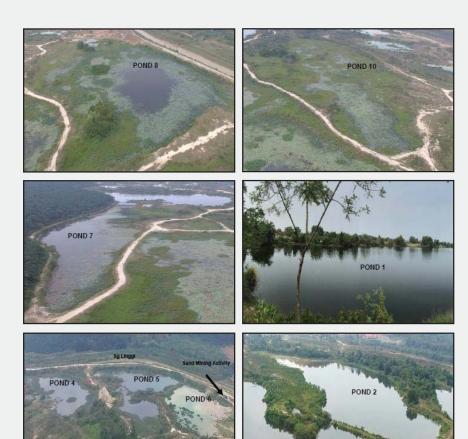
G&P Water & Maritime Sdn Bhd (GPWM) was appointed by Jabatan Bekalan Air (JBA), KeTTHA to assess the potential of utilising existing mining ponds at Sg Linggi near Kg Barisan, to be developed into a bunded storage scheme, incorporating a new water treatment plant with a design capacity of 150 MLD. The development will cater to the rising water demand in Port Dickson with regards to the massive development projected in the Malaysia Vision Valley (MVV).

Several potential ponds located at the left bank of Sg Linggi, about 13 km downstream of the existing Linggi Water Treatment Plant (WTP) near Kg Barisan have been identified for developments.

Project Objectives

The study aims to assess the feasibility of a bunded storage scheme along Sg Linggi to provide 150 MLD to a new water treatment plant:

- Hydrological study on the flow availability and water demand
- Water quality assessment at Sg Linggi and the existing ponds, with proposed treatment method
- Water resources and hydraulic modelling to optimize the pond size and overall scheme
- Conceptual design and cost estimation for the bunded storage scheme and raw water transfer system



Overall Layout and Component of Works for the Bunded Storage Scheme

- General earthworks.
- •1.5 m crest gate mechanical weir across Sg. Linggi.
- Riverside spillway intake at the river bank of Sq. Linggi.
- Water quality monitoring station before the raw water intake point.
- Sedimentation forebay at the riverside spillway intake outlet.
- Electrical building for power supply to the weir, intake, raw water quality monitoring stations, and the new intake tower plant.
- •Outlet structure for raw water discharge.
- •Intake tower plant and pipeline for the raw water transfer.
- Water quality monitoring station in the bunded storage.
- •Slope protection works at the bank of the bunded storage.
- Miscellaneous works.

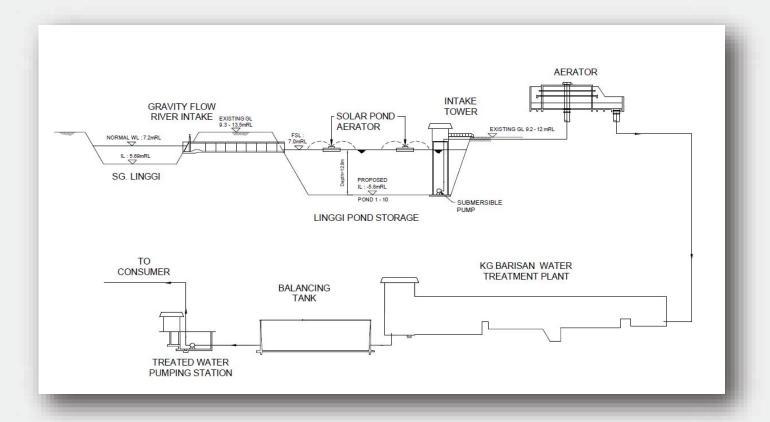


Figure 1: The Bunded Storage Conceptual Design



Figure 2: Overall Layout of the Proposed Bunded Storage Scheme



Ir. Dr. Tan Yean Chin's Appointment as IEM President 2017/18

On the night of 58th IEM Annual Dinner and Awards Night 2017, Ir. Dr. Tan Yean Chin conveyed his gratitude to the IEM council for reelecting him to the office of the President of IEM for 2017-2018.

As the second term IEM president, he addressed that with the impending changes and development of more engineering disciplines, it is important that IEM evolves and stays relevant with the ever-changing landscape of engineering in Malaysia. IEM has to be made an inclusive institute so that it can continue to grow and stay relevant for long-term sustainability.

Ir. Dr. Tan Y.C also highlighted the importance that IEM should encourage more membership from Young Engineers, Women Engineers, Engineering Technologists (as IEM Incorporated Members) and Technicians (as IEM Associates Members) in order to ensure the sustainability of the institute.

The President of IEM also mentioned that IEM has emerged as the leading player in the engineering fraternity internationally especially in the ASEAN and Asia Pacific region, whereby IEM is the permanent Secretariat of ASEAN Federation of Engineering Organisations (AFEO) and



the Federation of Engineering Institutions of Asia and the Pacific (FEIAP), as well as being the Secretary General of both AFEO and FEIAP. FEIAP is also currently working closely with UNESCO on a project to strengthen and upgrade the quality of engineering education and to enable mobility of engineers between Asia, the Pacific region and Africa.

Congratulations to our Senior Director, Ir. Dr. Tan Yean Chin on obtaining his Engineering Doctorate from University Teknologi Malaysia (UTM) on 21st May 2017.

NEWS FLASH @ G&P

Christmas Party 2016

G&P annual Christmas Party was held on 16th December 2016. Some of the highlights were singing, mini games, lucky draw as well as a memorable gift exchange session. The event was full of joy, fun, cheerful and exciting moments with everyone celebrating the season of joy as a big family.





G&P Olympics 2017

G&P Olympics is a yearly event with our staff participating in various games including bowling, badminton, basketball, table tennis, etc.













- Table Tennis Players
- 2. Basketball Men's Group Champion
- Badminton Men's Doubles Winners
- 4. Badminton Men's Singles and Women's Doubles Winners
- 5. Futsal Champion Team
- 6. Bowling Champion Team



WORDS FROM OUR CFO

Dato' Ir. Dr. Gue See Sew:

Fellow directors, respected colleagues, and dearest families, good evening and a very warm welcome to G&P's 17th Anniversary Dinner. Thank you very much for gracing this special night with our G&P families.

We now have four specialist firms in G&P Group implementing G&P's "Zero-In-Zero-Out" model. The latest one is G&P Sarawak. This model allows the staff to elect their own directors and senior staff to enjoy the sharing of profits and dividends.

Looking at our staff strength, there is a slowdown in the Malaysian economy particularly in our sector. Despite this slowdown, some of our specialist firms are still growing and recruiting. G&P Geo now has 140 staff and are still looking to recruit more engineers.

Yes, we are still recruiting more engineers. We want to be over employed! Why? so that our engineers can have more time to engage in R&D and Value Engineering. I believe in the saying:

"When you do more than what you are paid to do, you will eventually be paid more for what you do!" We have experienced being paid more, GPG has experienced being paid more.





Le Méridien, Putrajaya

We will continue to secure projects even during the economic slowdown, if we continue to add more values to projects.

Dear colleagues, I believe the main reasons for G&P becoming prominent and getting many mega projects are our four core values:

- Structured QA/QC
- Structured Training
- Structured R&D Value Adding
- Structured Sharing of Knowledge

Colleagues & Family,

We are most proud of our senior director Ir. Dr. Tan Yean Chin who was elected as IEM President this year. We are the only private company that have two presidents of IEM. I was the president of IEM from 2001 to 2003. Many of our directors volunteer their services to engineering fraternities such as IEM, BEM, ACEM, CIDB and giving expert opinion to the media. Our Senior Director Ir. Liew Shaw Shong was interviewed by NTV 7 Global Watch and NTV 7 News on geotechnical engineering. Our director Ir. Lalchand Gulabrai was interviewed by IEM on green technology, excerpts of which were published in National Geographic, our G&P Highway MD, Ir. Lee Choy Hin was interviewed by Focusweek magazine on traffic congestion in the Klang Valley. G&P Water's Advisor Ir. Chong Sun Fatt was interviewed by Sin Chew Daily on water resources. Let us all give them a big round of applause for flying our flag high and for the leadership role in many specialised areas of engineering!

Last but not least, I would like to thank all the staff for their great efforts in improving the company and adding values to our clients. I would also like to express my gratitude to Khairul, organising chairman and his sports club committee members in making G&P's 17th Anniversary Dinner a success. Please enjoy the rest of the evening and thank you for gracing this memorable night.

G&P's Footprints

16th September 2016

Our Director, Ir. Lalchand Gulabrai was interviewed by Professor Saleem H. Ali on green technology. Excerpts from the interview were posted on National Geographic's online portal http://voices.nationalgeographic.com/2016/09/16/malaysias-green-energy-path/

11th October 2016

Senior Director, Ir. Dr. Tan Yean Chin, was reappointed by the Minister of Works, Malaysia as Board Member of the Board of Engineers, Malaysia (BEM) for the year 2016/2017.

15th April 2017

Senior Director of G&P Geotechnics Sdn Bhd, Ir. Dr. Tan Yean Chin was re-elected to serve his second term (2017 - 2018) as President of the Institution of Engineers, Malaysia.

21st May 2017

Senior Director of G&P Geotechnics Sdn Bhd, Ir. Dr. Tan Yean Chin has obtained his Engineering Doctorate from University Teknologi Malaysia (UTM) on 21st May 2017.

15th September 2017

Our CEO, Dato' Ir. Dr. Gue See Sew was presented the CEO of the Year Award at the prestigious Malaysian Construction Industry Excellence Awards (MCIEA) hosted by the Construction Industry Development Board (CIDB) Malaysia at Hilton Hotel, Kuala Lumpur.

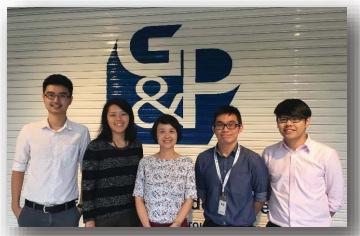


Certificate of Re-appointment of Ir. Dr. Tan Yean Chin as Board Member of BEM for the year 2016/2017 by the Minister of Works, Malaysia

G&P Digest's Editorial Board

We are honoured to be appointed as the editorial team of G&P Digest Issue No. 10, and are pleased to present engaging contents for our reader's reading pleasure. We hope to update our readers with G&P's news, and at the same time keep our readers abreast with some of the notable construction projects in Malaysia.

Besides, the editorial board would like to take this opportunity to express our gratitude towards the project team of "KVMRT Line 2" (Ir. Dr. Tan Y.C., Ir. Koo K.S.), "Cyberjaya City Centre" (Ir. Tan W.K., En. Hazziq), "Queens Waterfront" (Ir. Dr. Tan Y.C., Ms. Ong K.P., Ms. Atiqah, and Ms. Jessie Tiong), and "Bund Storage Scheme" (Ir. Lim S.P., Ir. Chong S.F., Ir. Yong S.F., Yuhainis K., Lim C.K., Chuah S.L., and Beh H.L.) for their contributions.



Editorial Board of G&P Digest Issue No. 10 (From left: Desmond Teh, Vanessa Tan, Dr. SY Wong, Jordan Lee, LW Lok)



Dato' Ir. Dr. Gue See Sew being presented the "CEO of the Year Award" at Malaysian Construction Industry Excellence Awards (MCIEA) hosted by the Construction Industry Development Board (CIDB) Malaysia at Hilton Hotel, Kuala Lumpur.

CORPORATE PROFILE

G&P Professionals Group consists of the following specialist engineering consulting firms that provide a wide range of quality engineering services:

- G&P Geotechnics Sdn. Bhd.
- G&P Structures Sdn. Bhd.
- G&P Infra Sdn. Bhd.
- G&P Maritime Sdn. Bhd.
- G&P Claims & Contracts Sdn. Bhd.
- G&P Project Management Sdn. Bhd.
- G&P Water Sdn. Bhd.
- G&P R International (Cambodia) Co. Ltd.
- G&P Highways & Transportation Sdn. Bhd.
- G&P Dams & Water Services Sdn. Bhd.
- G&P Professionals (Sarawak) Sdn. Bhd.
- NGI G&P Sdn. Bhd.
- •G&P Water (Singapore) Pte. Ltd.
- G&P AA International Consultant Joint Stock Company, Vietnam
- G&P Professionals (Sabah) Sdn. Bhd.
- G&P R&D Sdn. Bhd.
- G&P M&E Sdn. Bhd.

The Group has a fast expanding pool of highly qualified and experienced Geotechnical, Civil & Structural, Mechanical & Electrical, Infrastructure, Maritime, Water, Highways, Railways & Transportation and Dams Engineers, Engineering Geologists and technical support staff.

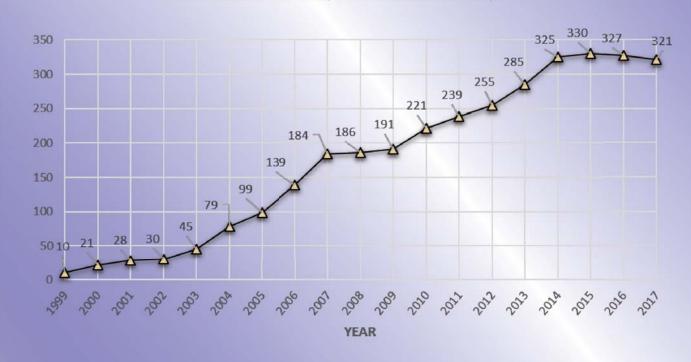
The Group has several associated organisations overseas where value added is further enhanced. The project activities are handled by the specialists within the Group who explore innovative and economical solutions tailored to the needs of the projects. Our research and development culture has ensured that our services are always at the forefront of world trends.

Associated Organisation



Norwegian Geotechnical Institute Norway

STAFF STRENGTH (Year 1999 - 2017)





STAFF STRENGTH

G&P Professionals Sdn Bhd

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