


ENGAGED!

COLLABORATING FOR A BRIGHTER FUTURE

FROM TIP(S) TO TOE: A LOOK INTO TIPS



Lean Construction Institute
Transforming Design and Construction

LAST PLANNER®

Progress Report

32% PPVC	Total 7800	Net Started 4600	Production 300	Yard 300	Site 100	Installed 2500
27% 2D	Total 15000	Net Started 9500	Production 500	Yard 500	Site 500	Installed 4000

Current Month

20% TEAMBUILD	40% REAPLITE	39% ACPM	10% SPC	61% SK YARD	39% SITE
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Total Required: 200 (T), 90 (R), 180 (Y), 100 (S), 110 (I)

Hoist

Serial No. T12345
Marking 402-83940-2
Project/E. No./A. / R/O-956
Zone A

No. of Workers: 5

STEP 1
Rope Adjustment (A)

START

Once started, cannot stop hoisting. Hoist goes to background, research app will still be at these screens.

Hoist

Serial No. T12345
Marking 402-83940-2
Project/E. No./A. / R/O-956
Zone A

STEP 2
Hook Up Lifting Frame (B)

START

STOP HOIST

Hoist

Serial No. T12345
Marking 402-83940-2
Project/E. No./A. / R/O-956
Zone A

STEP 3
Lift Module (C)

START

STOP HOIST

TIPS - Fabrication

Name: Anil Kumaran
Role: Construction Worker
Company: Subcon A1 Sdn Bhd

Scan QR Code

Check Module

Park Module

Receive

Sungei Kadut Street 1


Consider Auto Lot selection

7					
6					
5					
4					
3					
2					
1			X	X	


A B C D E

Full Partial Current
X Blocked Selected

ADD MODULE DONE

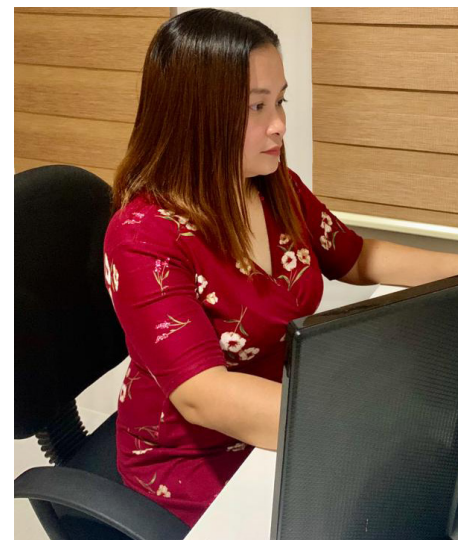
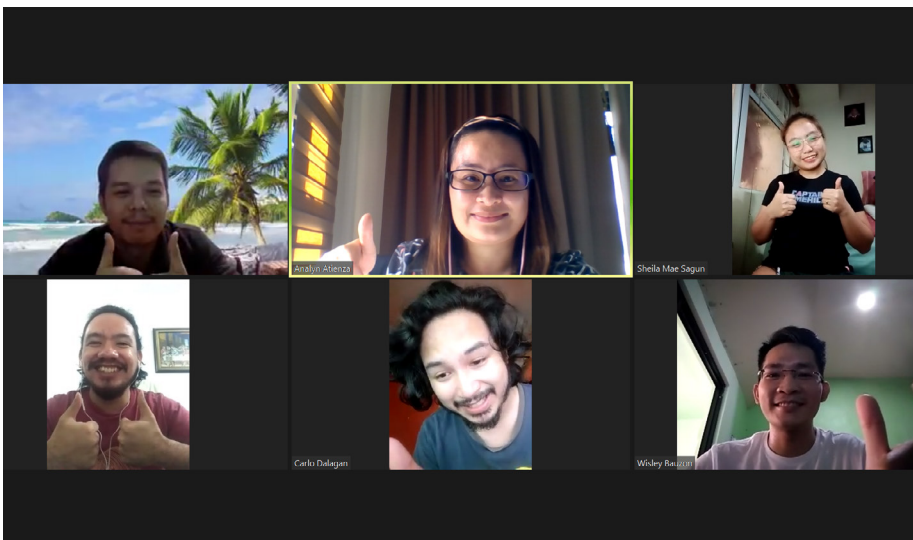


UTAMAKAN TIPS-20 KESSEL



CONVERSATION WITH | WORK BEYOND SINGAPORE'S WATERS

AT THE FOREFRONT





TIPS help us to plan, coordinate, and track PPVC modules from the drawing stage to the production, fit-out, and final site installation phases.

PUSHING FORWARD IN 2021!



各位同事：

祝大家牛年身体健康，万事如意！

与此同时，也希望大家在这新的一年专注于具有前瞻性的项目。

我们计划在今年下半年启动Teambuild综合规划系统 (Teambuild Integrated Planning System (TIPS))。这是我非常期待的一个项目。它为PPVC项目整体进度提供可视化，提高从工厂到预装构件车间，再到施工现场安装的整体协调性。准确实时的数据将有助于提高从一个流程到下一个流程的效率和生产率，并提高项目总体进度。

在过去的两年，计划和执行一直是我们的重点之一。我一直认为目标和计划很重要，但更重要的是“如何实

现”此目标。TIPS为PPVC项目规划与执行提供了“如何实现目标的方法”。在推动新系统时，其初始阶段是最具挑战性的。我们只有改变了思维模式，才能改变自己的行动。最重要的是，为了获取准确的数据，我们必须确保扫描程序的准确性，即在工序前后，必须严格执行“一进一出”扫描登记，否则稍有不准确数据，就会功亏一篑。因此，项目团队的支持和对工人的培训是成功的关键因素。

在本期ENGAGED!，我们将为您介绍TIPS及其好处。如有兴趣了解此项目的更多信息，以及它如何能帮助您和您的团队提高生产力，请联系此项目的负责人Ivan。

此外，我们也在本期ENGAGED!为您介绍我们在马尼拉的BIM团队。该团队是新加坡IPS - BIM团队的延伸。另外，在马尼拉我们还设有QS团队，是TBEC - QS部门的延伸。我们将在下几期的ENGAGED!介绍他们。

Dear Colleagues,

Happy Year of the Ox! Wishing everyone a healthy and successful year of the Ox!

There is plenty to be achieved this year. Let us focus on forward-looking efforts and initiatives.

One of the work-in-progress items I am looking forward to is the launch of the Teambuild Integrated Planning System (TIPS) in the second half of this year. As the end-to-end progress visualization tool for PPVC, this system sets out to improve the overall coordination from factory and fit-out yard to site installation. With accurate real-time data which will aid in increasing the efficiency and productivity moving from one process to the next, I am hopeful it will help to reduce overall project schedule.

Planning and Execution has been one of our key focus for the last couple of years. And, I have been thinking not just about our targets and our objectives, but also the 'how'. TIPS serves as the solution for the 'how' in the area of planning and execution for PPVC projects. I understand with all new system implementations, the initial phase is always the most

challenging. We need to adapt our thinking and change our actions. Most importantly, to have accurate data, we will need to ensure accuracy when scanning in and out of the app. Just right before we start a task, we scan in and we scan out just right after we end the task. Without the accuracy, it would be 'garbage in, garbage out' and would defeat the purpose of implementing TIPS. The buy-in of the project teams and training of the workers are key success factors.

In this issue, we bring to you a visual introduction of TIPS as well as a summary of the benefits. Those from the project teams - if you are interested to learn more before the launch and how it can help you and your team to be more productive, you may approach Ivan who is the lead for this project.

This issue, we also featured our offshore BIM team based in Manila who is an extension of our IPS local BIM team. We also have an offshore QS team based in Manila reporting to TBEC's QS team. You will be reading about them in subsequent issues.

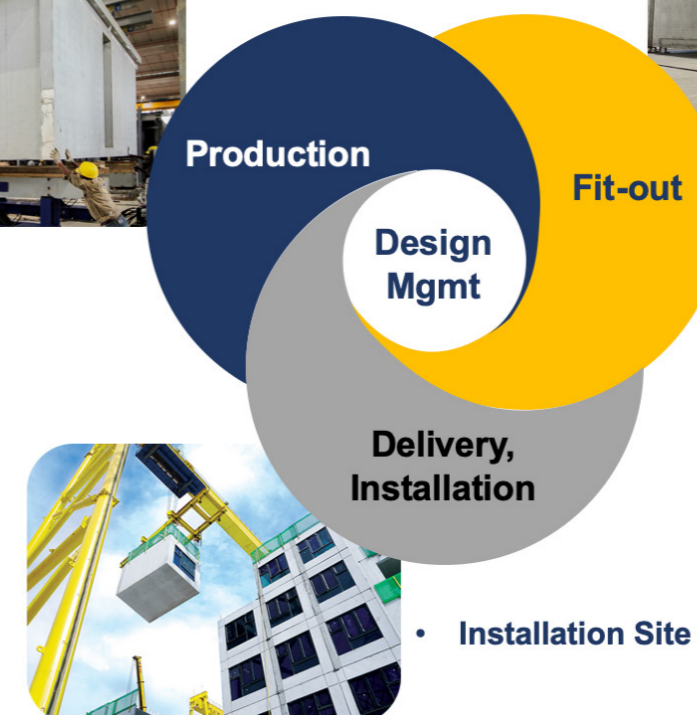
Enjoy reading this issue!

MODULES FOR DESIGN, FACTORY, FIT-OUT YARD & SITE

- Factory
- QAQC



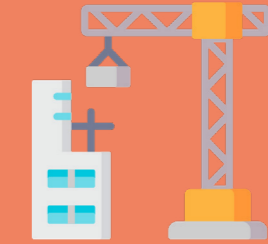
- Fit-out Yard
- QAQC



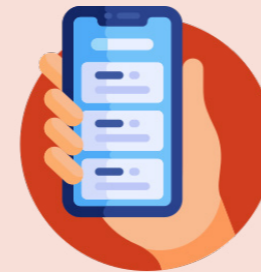
- Installation Site

FROM TIP(S) TO TOE: A QUICK GUIDE TO TIPS

TEAMBUILD INTEGRATED PLANNING SYSTEM: THE END-TO-END PROGRESS VISUALIZATION TOOL FOR PPVC



INTRODUCTION



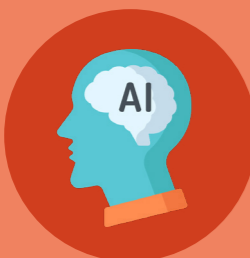
TIPS PROCESS FLOW



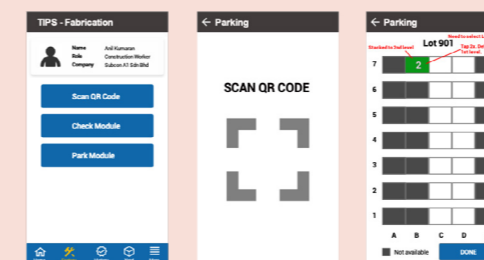
By incorporating Last Planner® System into the planning logic, the software will allow us to **plan, coordinate, and track** PPVC modules from the **drawing stage to the production, fit-out, and final site installation phases.**



Dashboard and reports for data analysis will be available for users to **monitor and review** the overall production planning and fulfilment process.

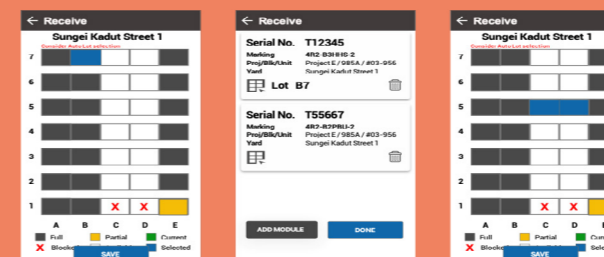


Artificial Intelligence techniques will be employed via applicable algorithms to help in providing system-computed proposal of installation plans for site teams, and to inform of resource needs at the fit-up yards.



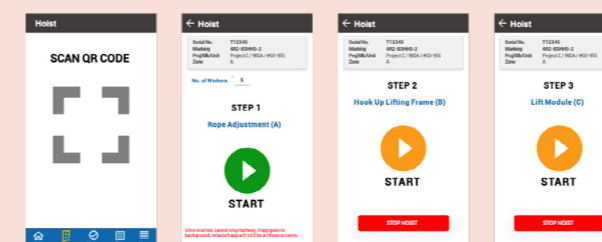
FACTORY

- QR Codes are generated at factory to track the process from rebar/mesh/cage, casting to completion.
- Upon completion, precasted components are scanned into designated locations for ease of fast retrieval.



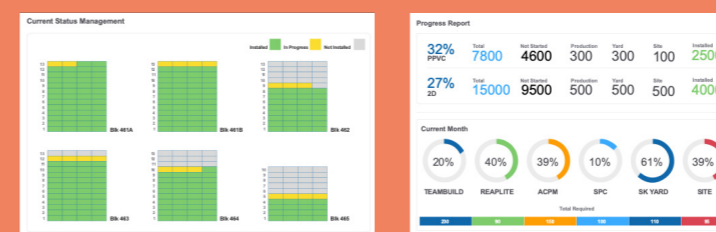
FIT-OUT YARD

- Upon reaching the fit-out yard, the modules are scanned into designated locations for ease of fast retrieval.
- Trade workers will scan in and out as the works are performed on the module.



INSTALLATION SITE

At the site, the worker will scan to start and when the installation process is completed, scan to end.



DASHBOARDS

With the real time data capture, various progress status and KPI can be generated.



EXPECTED BENEFITS OF TIPS



HIGHER ACCURACY

Improve % of accuracy in delivery of PPVC modules in correct sequence as per reinforce concrete (RC) cycle.



REAL-TIME UPDATES

Real-time updates on progress at Factory, Fit-out Yard and Site Installation.



REDUCED STORAGE

With the accuracy in delivery of PPVC modules in correct sequence, we expect to reduce storage space.



REDUCED WAITING TIME

With the alert feature in the software, workers would be alerted to work on the next process when the preceding process is completed.



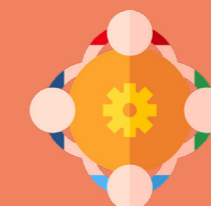
REDUCED FIT-OUT CYCLE TIME

With the correct sequence of PPVC modules delivered to fit-out yard, we expect the waiting time to process the right PPVC module would be reduced and the accuracy of resource planning improved.



REDUCED SEARCH TIME

With the module digitally assigned to the location, workers would be able to locate the exact position of the module on the mobile app within a minute.

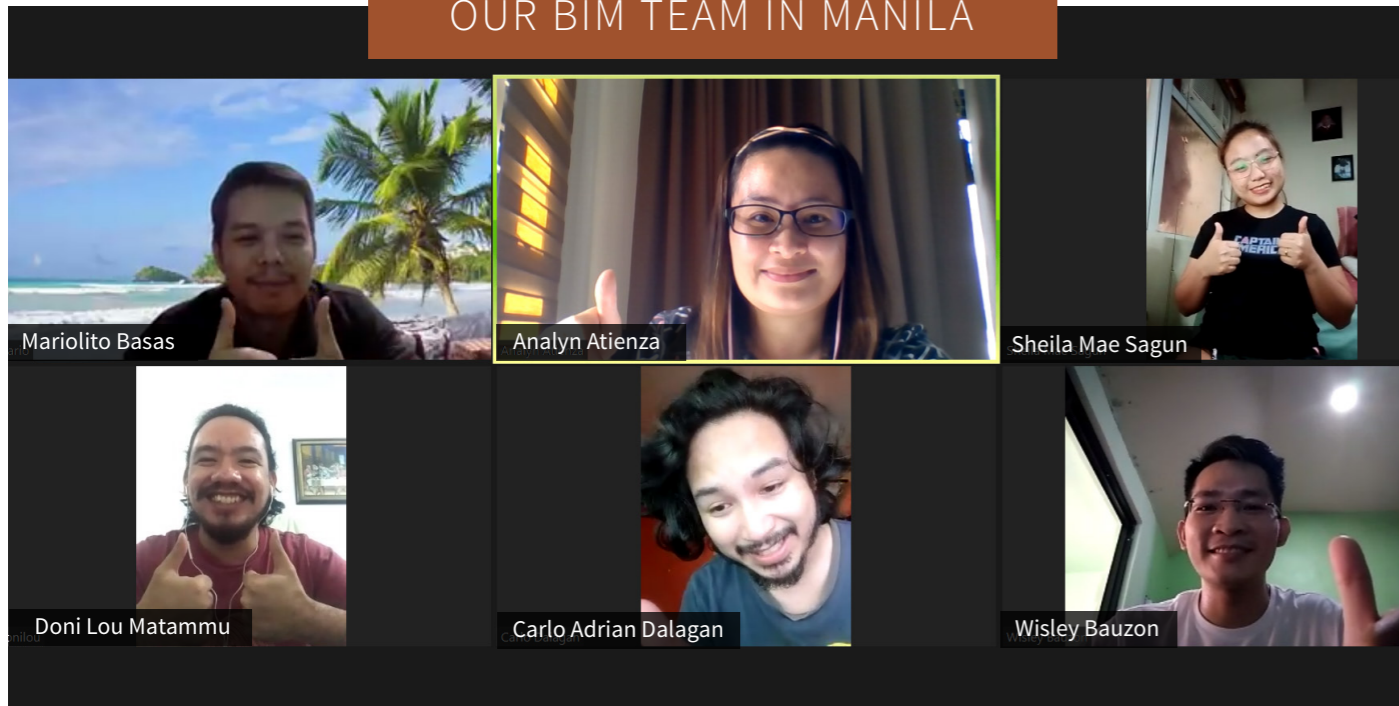


IMPROVED COORDINATION

Improve overall coordination with accurate real time data from factory, fit-out to site installation to reduce overall project schedule.

CONVERSATION WITH

OUR BIM TEAM IN MANILA



Working beyond the waters of Singapore is our BIM offshore team based in the Philippines, who will be taking the spotlight for this issue. An extension of the IPS team on home ground, its members work together to develop shop drawings and coordinate projects, while acting as a bridge between the two countries. Here, the team shares more about their common job as a BIM Modeller, and offers a little glimpse of themselves.

Enter Mariolito Basas, Sheila Mae Sagun, Carlo Adrian Dalagan, Wisley Bauzon, and Doni Lou Matammu.

As a member of the BIM offshore team, what impact would you want to make on our organisation?

Mariolito Basas (M): As a member of the BIM offshore team, the goal is to create a positive impact, and to be a consistent contributor for the team and for the benefit of the company.

Sheila Mae Sagun (S): I hope to produce good quality work so that I can be trusted to do the job. By demonstrating competence, the work that I've done will leave a lasting impression.

Carlo Adrian Dalagan (C): As an individual, I would like to show my gratitude to the organisation for imparting tons of knowledge to me, and I'm hoping that the company will

be heartened by my appreciation.

Wisley Bauzon (W): I'd like to be a key part of our team and be recognised as on par with the Singapore team by being productive and providing great results for the company.

Doni Lou Matammu (D): Lessening my mistakes and doing my best to create better models and drawings.

What can the team in Singapore do to make your work more productive?

M: Not much, I guess, because of the distance, but our team leader can help to coordinate the instructions from the job site or fabrication team. I guess it's up to us, the offshore BIM team, to strive to be productive.

S: Effective communication. It plays a big role in helping us to understand the queries regarding the projects, contributing to a large extent to our team productivity.

C: I think that the team in Singapore has always given us satisfactory assistance and it's up to me to have that sense of accountability to reciprocate with the good treatment we are receiving.

W: Better communication and data sharing. I believe that a more thorough flow of information and the sharing of ideas and concepts will ease the work of both the offshore and Singapore team.

D: Maybe by helping us create better and 'cleaner' plans and drawings.

What inspired you to carve out a career in BIM?

M: I enjoy my job as a BIM modeler, and it's the best job that I know within the corporate arena.

S: BIM is a very viable career option. Through BIM, there are many opportunities out there for young professionals like me.

C: I've been designing façades as an architect for 6 years in my previous company and so, I really got interested in the technical side of designing and saw BIM as a good opportunity to explore.

W: Since I was a kid, I really wanted to 'make' buildings and structures but as time went by and I got older, my drive and inspiration changed to not only 'making', but to be sure that we make

the safest and grandest structures.

D: Because of the opportunities in BIM!

Tell us what makes your day.

M: An accomplished task, good food, exercise, and good vibes within the family.

S: Finishing my tasks and receiving commendation for my efforts makes my day. Feeling understood and valued by my colleagues can significantly increase my confidence at work too!

C: To see my family happy.

W: Getting the job done according to the company's standards and business/project needs. And a cup of coffee! :)

D: Small gestures and appreciation!

Now, a fun question: If you can have a superpower to help you in your work, what would you like to have?

M: I'd love to have unlimited energy, crystal clear eyesight, a genius level of intelligence and the best computer in the world!

S: I want the superpower of positive attitude. I can be the source of positivity in challenging times and I believe that positive attitudes will always bring positive results.

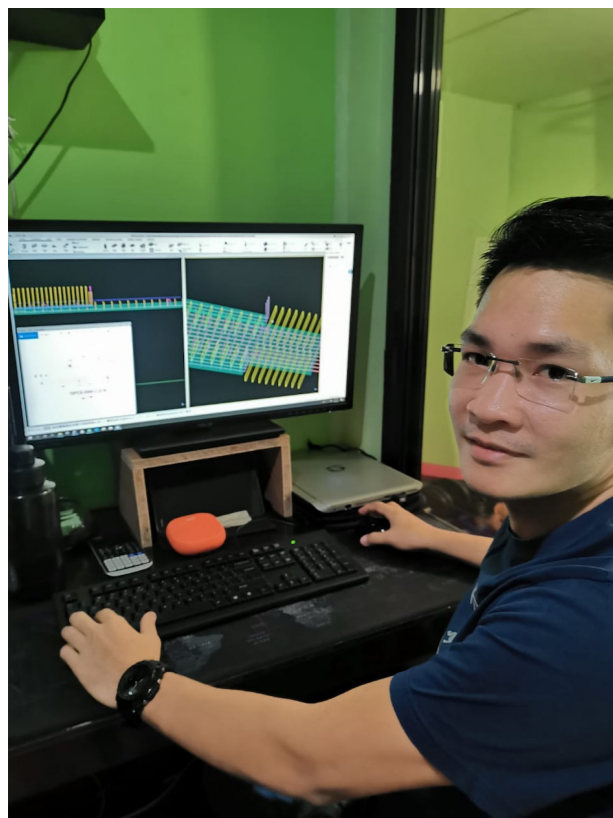
C: I wish I could multiply myself so I can do multiple things at once!

W: Time-travelling! To go to the future to see what will require us as a company to improve and innovate.

D: To see the future so we can avoid mistakes. :) **E**



The office the Manila BIM team is based in before they started working from home due to Covid-19.



PH TEAM IN ACTION: WFH EDITION

AT THE FOREFRONT WITH ANALYN ATIENZA — BIM COORDINATOR (PHILIPPINES OFFSHORE TEAM)

Have you ever wondered about the daily job routines of other roles, or the happenings at a project site?

At the Forefront is about sharing the different roles that come together to make up Teambuild Group.

Experience comes with time, but even the most experienced of all individuals aren't excluded from journey that is lifelong learning. Mahatma Gandhi endorsed it, Albert Einstein encouraged it, Henry Ford championed it, and the repeated focus has since lent weight, value, and truth to the culture of continuous learning.

For BIM Coordinator Analyn Atienza (Ana for short) of the Philippines offshore team, the trait is a core element of her work process, serving as a source of motivation, purpose, and enthusiasm that never fails to keep her going. The veteran, after all, has yet to tire of her work despite more than a decade – and counting – of being in the precast field, which she contributes to two primary factors: continuous learning, and continuous innovation.

“For me, ever since I joined the precast industry, I've been doing shop drawings, to be fabricated and tested on site. So I'm very much passionate in, and even after 11 years, I'm not getting tired,” shares the woman, whose eyes have taken on a brighter sheen of zeal.

“I'm still learning new things everyday! PPVC, for example, saw the transition of 2D precast to more advanced technology – a process that we're (the team) are all still learning about. This is the thing I'm most passionate about: continuous learning, and continuous innovation.”

The presence of a driving force is certainly helpful in pushing past the more tedious, monotonous parts of the job. Like most cases in the industry, Ana's responsibilities are often executed in the familiar rhythm of a fixed routine, which includes coordinating projects between Singapore and Philippines, supervising the team, and working with project and technical engineers in Singapore.

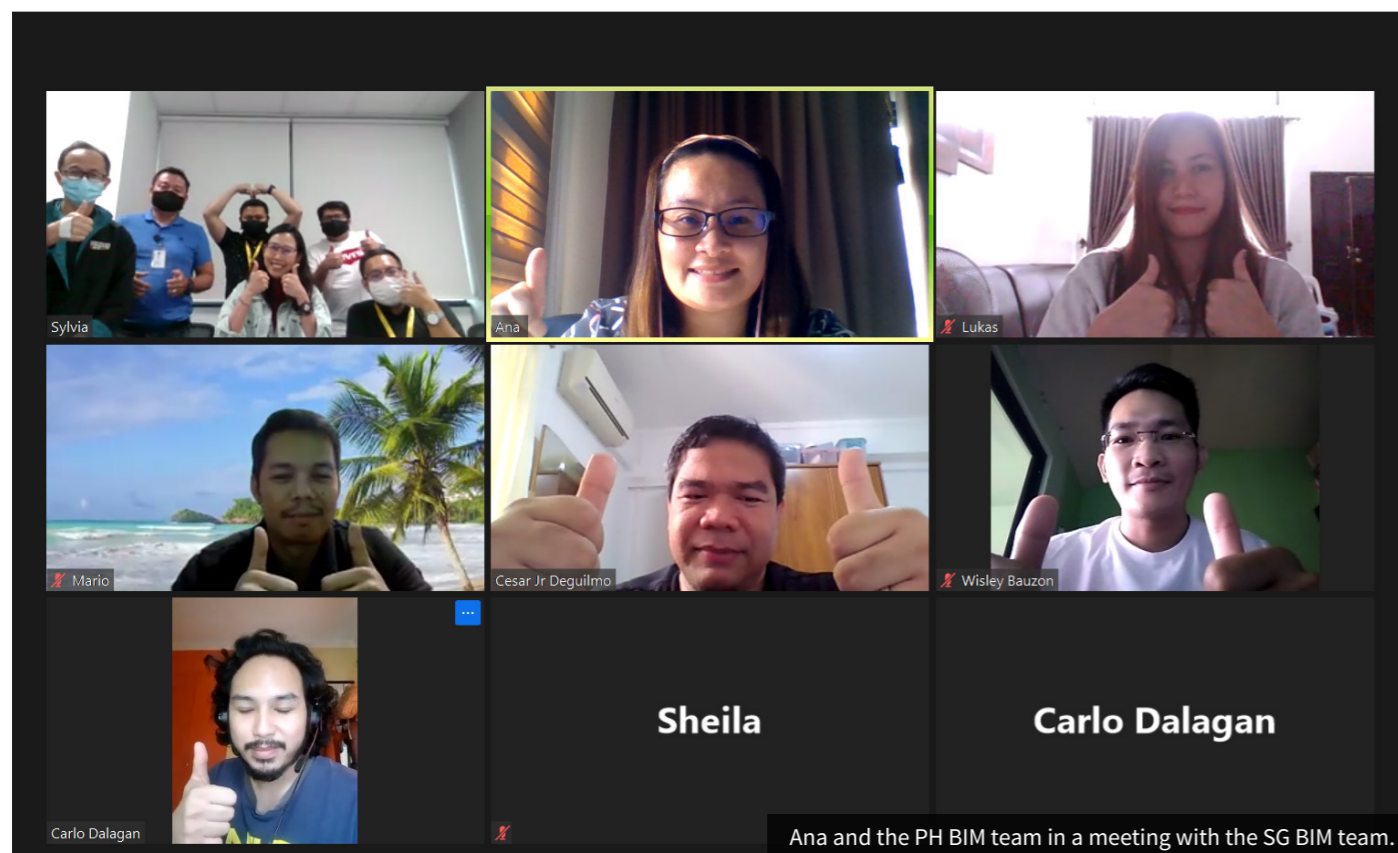
It's a good in-between for the Philippines-based member, who's familiar with the modus operandi and working culture of both countries. Highlighting the differences in infrastructure and expectations

between them, Ana expresses how she had to adapt to the structural requirements of remote work when she made the shift to Philippines.

“At first, there were some adjustments when I started working remotely, but as time passed by, we [the Philippines offshore team] were able to close the gap,” she says. “Firstly, we went digital, which wasn't too much of an issue as long as there was internet connection, but that was the main issue: the Internet connection in the Philippines isn't as good as that of Singapore's.”

“Still, we tried anyway, and with the more advanced Wi-Fi technology in Manila (as compared to other states in the country), we were eventually able to communicate with the Singapore team through Zoom and Skype meetings.”

The offshore team now boasts a total of six BIM modellers, with about four to five projects under its belt. Of the



list, Ana finds Woodleigh Residences to be the most memorable undertaking to date, because it marks the first time that the Philippines side was given full initiative of a work-in-progress.

The coordinator explains, “Most of the projects that the Philippines team takes on are just a continuation of existing projects. In such cases, we usually get two BIM modellers to assist the Singapore team when extra reinforcement is required.”

“But for Woodleigh Residences, it was the very first project that was started in the Philippines,” she adds with a tinge of pride in her voice. “Until now, it’s still being handled by our team.”

It’s steady and encouraging progress for a department that had to learn and develop technical PPVC knowledge from the ground up during its early days. Because the offshore team’s expertise was mainly in rebar and

profile detailing, majority of the members were unfamiliar with PPVC detailing, which was relatively new in the industry at that time – and virtually unexplored in the Philippines.

“Initially, the BIM modellers didn’t have any knowledge about the PPVC process, because in Philippines there’s no precast system that’s similar to Singapore,” Ana recalls. “At first, I struggled because I had to train everyone to develop the skill...but luckily, they were all willing to adopt the knowledge.”

The result? A fully-functional structure that would later serve as the foundation of communication and teamwork, achieved within a six-month timeframe.

Indeed, the two traits continue to be an industry must-have and a shared necessity for Ana and her team. As the BIM coordinator, she acts as the bridge

between the Singapore and Philippines teams, which makes two-way communication extremely essential in the liaison process.

The woman nods several times in agreement, “Sometimes miscommunication happens; maybe I misunderstood the other party or the vice-versa, and we interpreted the information in a different way from the other.

“But in the end, this can always be resolved in a table discussion, in an open discussion. It’s very important for this open discussion to resolve any issue, as communication is very important here (at Teambuild).”

Because the construction industry is teamwork-dependent in nature, the Philippines offshore team places a strong emphasis on having its members carry out their respective responsibilities, while also offering

assistance to one another whenever the situation calls for it. The work process, after all, isn’t easy, for it involves a fair mix of several different skill sets.

Of this, Ana elaborates, “Doing shop drawings and coordinating require a lot of technical studying because we have to deal with various aspects, such as architectural, structural, and MEP elements, that have to be combined and put into the shop drawings.”

More than that, new challenges will most certainly await the team as the industry continues to grow. In the process of adopting BIM technology, the team had to swap out the tradition of 2D drafting for a more technologically-advanced approach. With it, users will be able to synchronise the whole building model

and put it into realistic modelling to detect any further issues on site.

It’s a reminder of how quickly technology can evolve and the uncertainty that the future has in store for us. The thought is made less daunting, however, with Ana’s faith in herself and the team, “After these five years, we are able to adopt and delve deeper into BIM technology, and now I think we are more secure and confident in executing the work.”

While Ana admits that the work can be challenging, she welcomes the many learning opportunities that her job has to offer, especially in the area of self-growth and development. “I am happy to develop new ideas, learn new systems, and have the chance to see the leader in me,” she shares. “I’ve always believed that I wasn’t a

born leader, but now that I’m able to see it [personal contributions to the company], I know that I can actually lead.”

Does this mean that she’ll revisit her current role as BIM coordinator if given another shot at life? Propping her chin between the crook of her thumb and index finger, Ana mulls over her answer and proceeds to shake her head.

“I want to be a nurse, because I love wearing fully white clothes! They feel very professional,” she laughs.

An unexpected pick, but perhaps not all that different – handling and managing all kinds of people requires a certain nuance in communication, and if anything, Ana is more than well-versed in that area. E



Lunch gathering with Raymond and Sylvia from Singapore HQ before the Covid-19 pandemic.

JACK LUM
(GENERAL MANAGER, IAPL)

10Q IN 60S

10 Questions in 60 Seconds is a fun Q&A with colleagues.

TAN KOCK ANN
(GENERAL MANAGER, MESPS)

1

If you could use a time machine to go back in time to fix one thing, what would you do?

Create a greener environment, so we can all breathe better!

2

What is the one thing that people do not know about you?

I wash my house toilets every weekend!

3

If there is anywhere you could be right now, where would you be?

Switzerland.

1

What is the one thing that people do not know about you?

I don't drink alcohol.

2

If there is anywhere you could be right now, where would you be?

Singapore, as Singapore is one of the safest countries for COVID 19!

3

If you had a warning label, what would yours say?

Don't worry, be happy.

4

What is the craziest thing you've ever done?

Scaling the Great Wall of China by foot.

5

What is on your bucket list?

Travel the world.

6

If you had a warning label, what would yours say?

Speak up if you're wronged.

4

If you could make a rule for a day and everyone had to follow it, what would it be?

Don't waste food!

5

If you could use a time machine to go back in time to fix one thing or go to the future to see what it is like, which would you do?

I would go back to the past, to spend more time with my parents.

6

What is the craziest thing you've ever done?

Sleep for 2 days 2 nights!

7

If you could make a rule for a day and everyone had to follow it, what would it be?

No smoking!

8

Describe yourself in one word.

Old-fashioned! As I like all things historic.

7

What is on your bucket list?

To travel with my family.

8

What was your dream job when you were 10?

Police officer!

9

If you could have someone to help you with one household chore for the rest of your life, what would it be?

Washing toilets!

10

If you were a superhero, what powers would you have?

Healing powers!

9

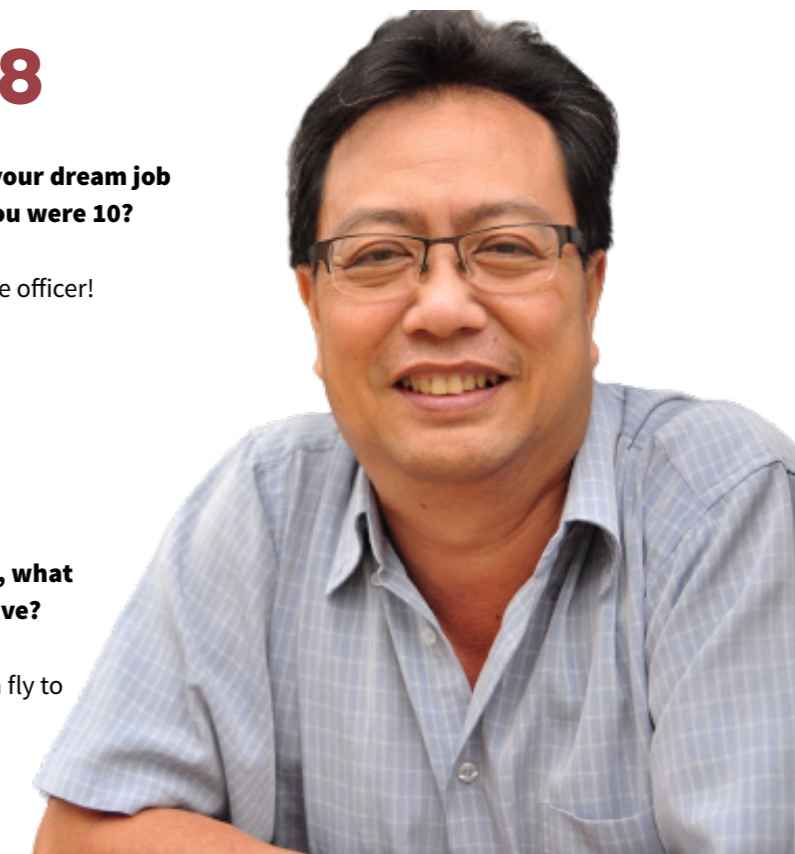
Describe yourself in one word.

Boring.

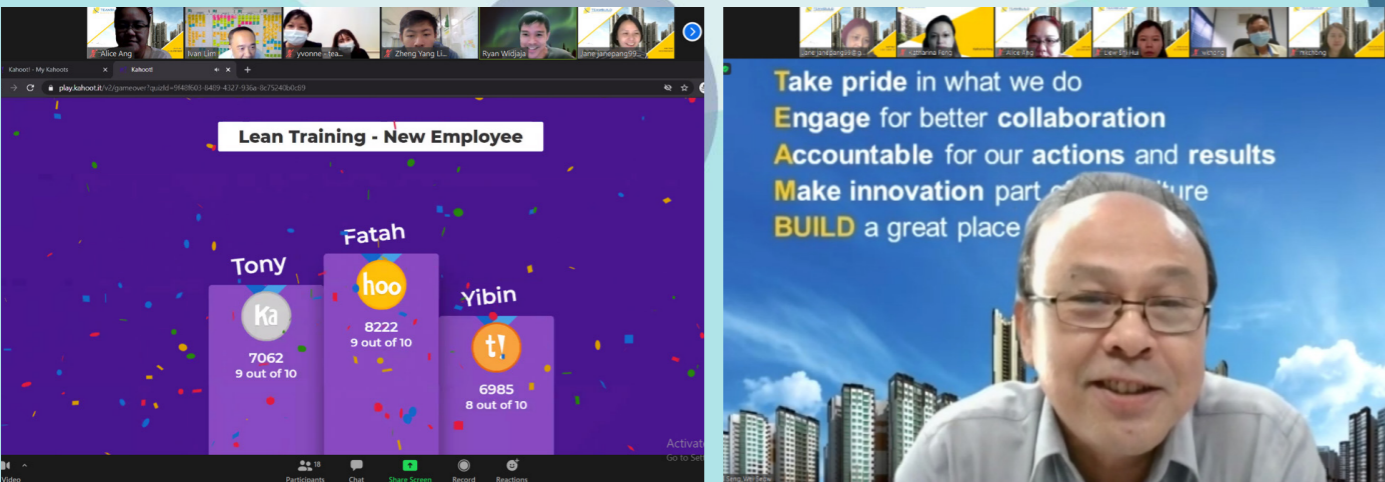
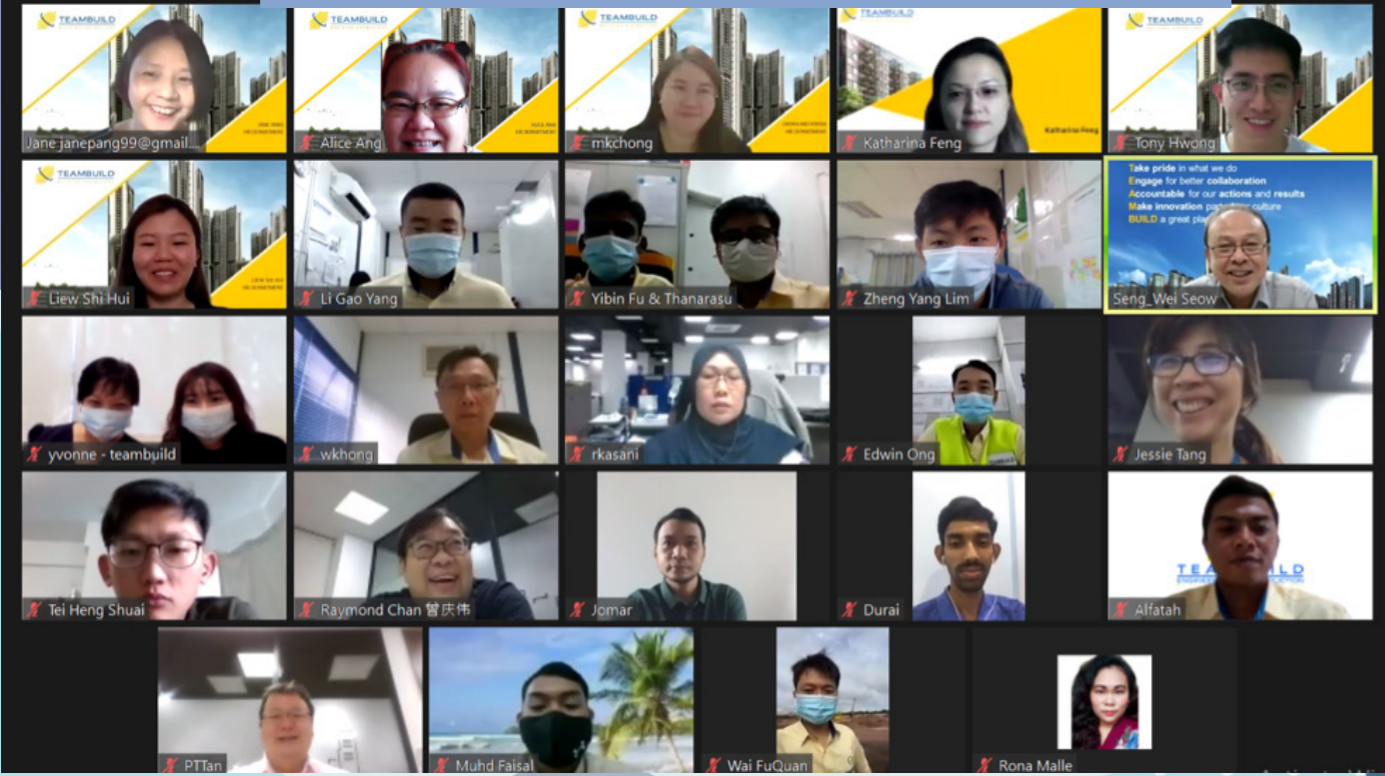
10

If you were a superhero, what powers would you have?

Ability to fly, so that I can fly to anywhere!

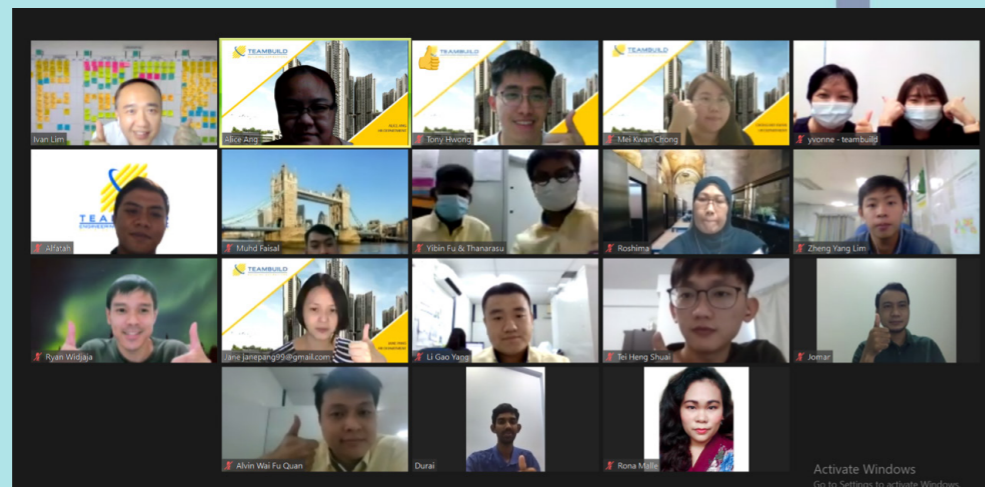


STAFF INDUCTION (DEC 2020)



As part of the welcome ritual for new staff, a two-in-one induction and Lean training session was held on 4 December 2020.

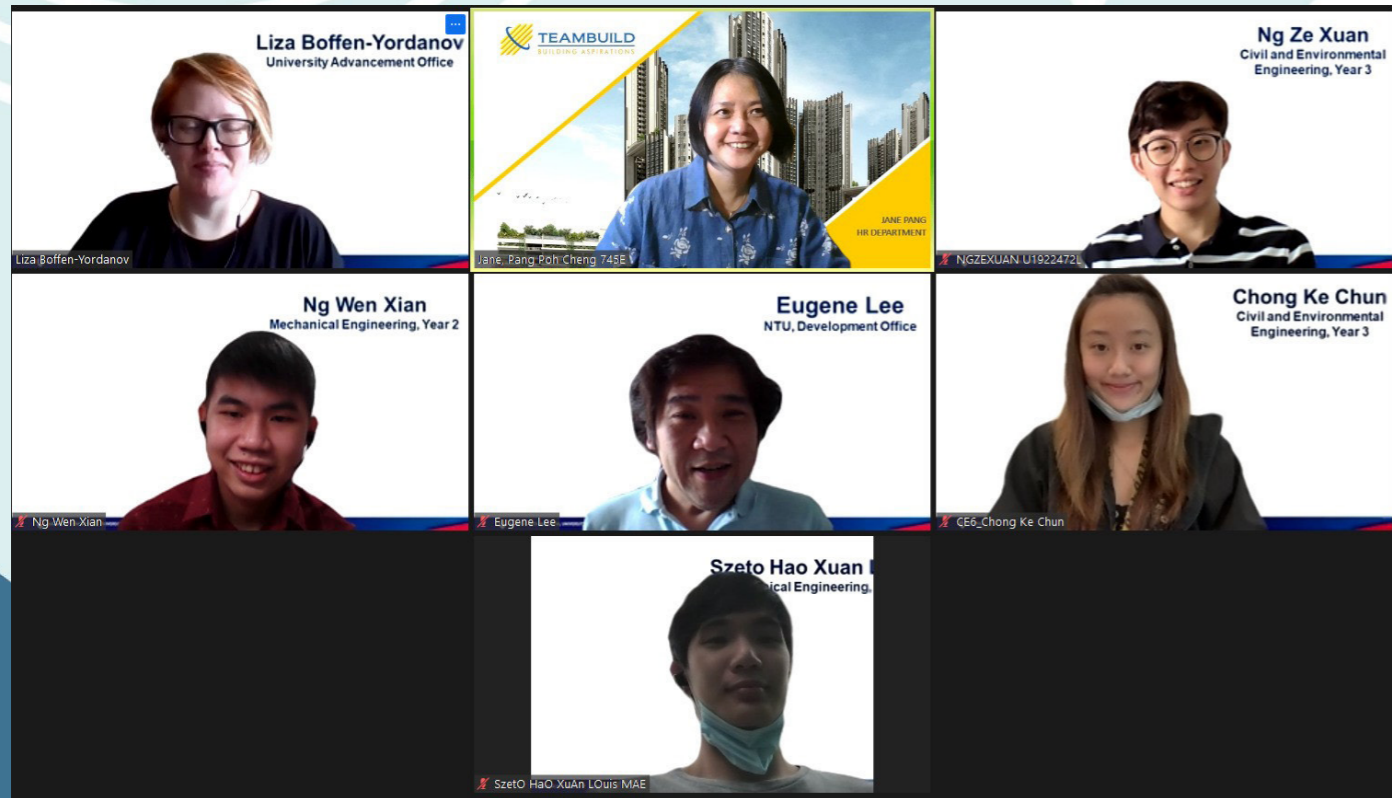
From Kahoot quizzes to introductory presentations from senior staff, it was a hectic – but no less enriching – affair. A very warm welcome to all new members!



PROJECT E SANCTUARY

Project E Sanctuary – a mini garden created by the Project E team within the project site – is an area where team members can destress, relax, and enjoy eating the fruits of their labour!





ONLINE ENGAGEMENT SESSION WITH NTU

Jane, our HR manager, recently had an engagement session with the NTU professors and the recipients of Seow Kim Peow-Teambuild Scholarship. Congratulations to the scholarship recipients!

Louis Szeto is now doing his internship at Project C. He will be sharing more of his internship experience in the next issue!

LONG SERVICE AWARDS

Awarded to individuals who have been in Teambuild for at least 5 years, the Long Service Award recognises the valued contributions of staff and their dedicated service to the company.

For the HQ-based recipients, Mr Seow gave out the awards to them on 19 January, while recipients based at project sites received their awards from the Project Managers on other arranged dates.

Congratulations to all recipients, and thank you for your continued efforts!



5 YEARS OF SERVICE



- RAZZAQUE MD ABDUR
- KHAN MD HAFIZ UDDIN
- SELVARASU KARTHIK
- TANG KWONG SING
- LIM YI HONG, ALLEN
- CHAN KENG WEE, RAYMOND
- GARCIA MARK ALLYSON ESPANOLA
- CHEN GUOFA
- JESSIE PANTIG TARUC
- EE WING LUN
- SAMSON ANTONI FERNANDOS
- VINCENT SOH HANG GUAT
- SU CHERRY YIN
- SU SU HLAING
- IBTISAM MARIA RAM
- FOO MEI LING, MICHELLE
- WONG YU TING
- WONG CHEN HIN
- ONG BOON CHOON



10 YEARS OF SERVICE



- CHIA LIANG WEI
- DING CHIANG WEE
- AW SAI KIT
- ZHANG YAFENG



15 YEARS

KARUPPAIAH MURUGIAH
Site Supervisor, Building Construction



15 YEARS

MANICKAM SENTHIL KUMAR
Senior Supervisor, Building Construction



15 YEARS

KOH PENG LI
Senior Accounts Executive, Finance



20 YEARS

KARUPPAIAH RAVIKUMAR
Excavator Operator, Logistics



20 YEARS

MOHAMMED HANIF YEASIN
Chargehand, Building Construction



20 YEARS

HANNAN ABDUL KHALEQUE KHAN
Senior WSH Coordinator, Building Construction



25 YEARS

TAN POH TUCK
Executive Director, Building Construction

SEOW KONG CHONG SCHOLARSHIP

The next round of application for the Seow Kong Chong scholarship will reopen on **21 May 2021**. In the meantime, do continue to take care and stay safe!



CREDITS

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STORIES / IDEAS

We would love to hear from you!

If you have any feedback on how we can improve future issues, please write to engaged@teambuild.com.sg. ENGAGED! would be more engaging if it is for the Teambuild community by the Teambuild community.



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