TAYLOR'S UNIVERSITY

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INTERNSHIP TRAINING & REPORT
(ARC 2613/ARC 2615/ARC 2622)

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COMPANY : Empayar Perunding Sdn. Bhd

Week 1 (3rd – 7th January 2017)

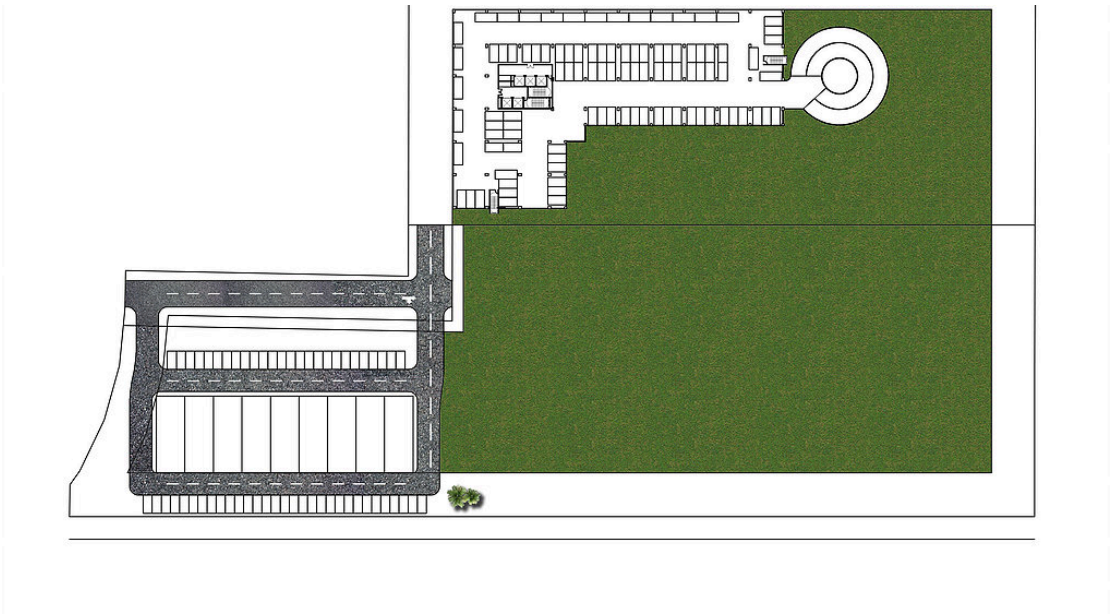

Image 1: Site plan that was put on hold because main RTM building wasn't fully finished, (which should be located on the bottom-right corner).

On the first day of internship training, I was told to come to work at 2:00pm due to my supervisor, Mr. Kamil, had an appointment with the doctor earlier during the day. He introduced me to the Vice President/Architect of the company and the other colleagues. I was then shown to my desk and I was assigned to their current project, which was for Radio Televisyen Malaysia (RTM), to build multiple units of buildings that consist of offices, recording studios, shop lots and residences. The project brief and schematic plans were shown to me to help me fully understand about the project. My first assignment was to finalize the site plan - where I had to add foliage, roads, site boundaries etc. but Mr. Kamil told me to put a hold on it because a colleague, Mdm. Hajar, wasn't fully done with the main RTM building.

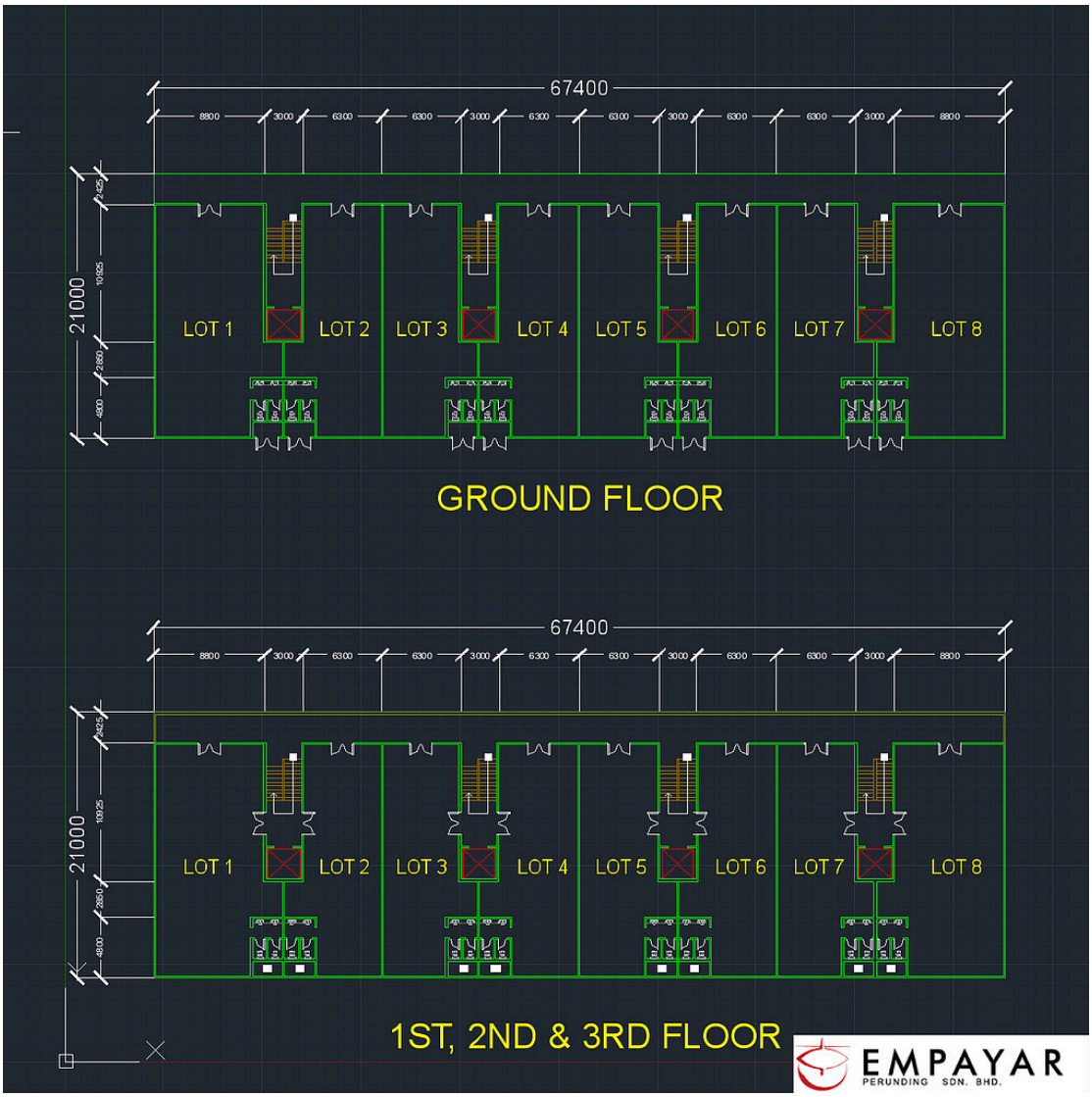

Image 2: RTM Selangor - Shop lots floor plan.

The next few days, I was assigned to design a schematic floor plan for the shop lots. They are specifically 8 units, with 4-storeys high. Mr. Kamil was flexible enough to let me refer to some floor plan designs from the Internet. In the process of designing the shop lots, I have learned a couple of things - plot ratio and the calculation of car park spaces. The designing of the shop lots took a few days and the final design was e-mailed to Mr. Kamil.

Week 2 (9th – 13th January 2017)

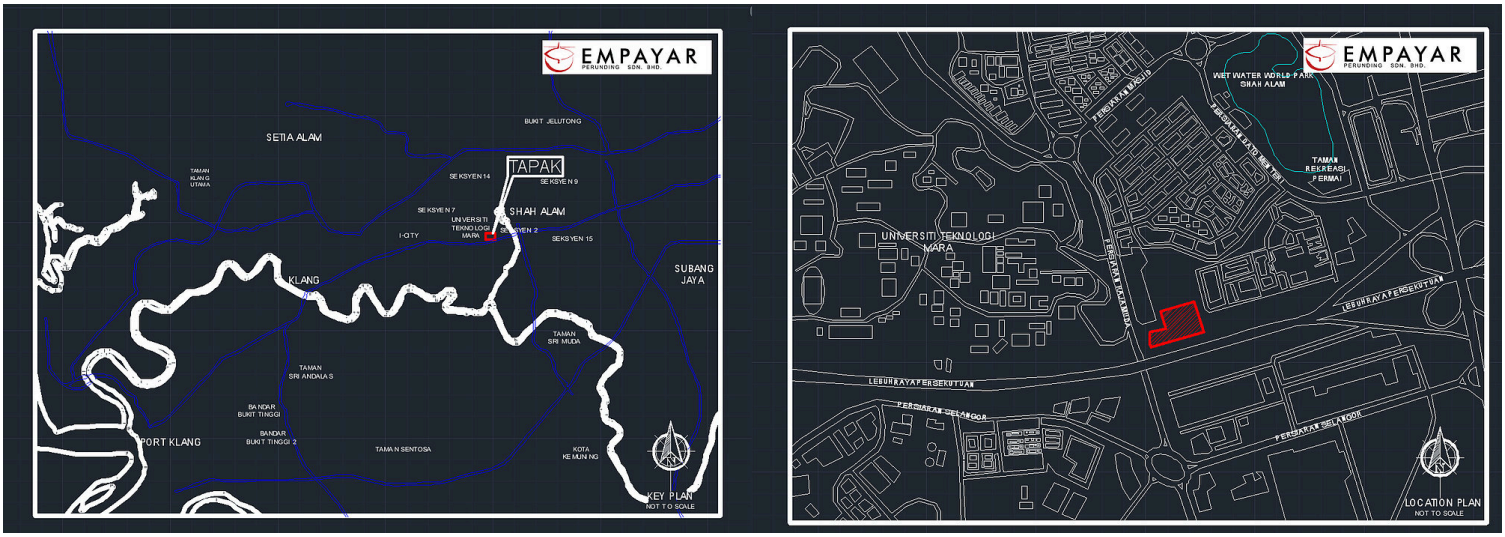

Image 3: From left: Key plan, location plan of proposed site for RTM building.

This week I was tasked on drawing the key and location plans of the proposed site of the RTM building. What I did was getting images of the site from Google Maps, then to trace them in AutoCAD. These documents are then sent to Mr. Kamil via e-mail. From this task, I was able to sharpen my CAD skills, in result of clarifying more about the proposed building to clients.

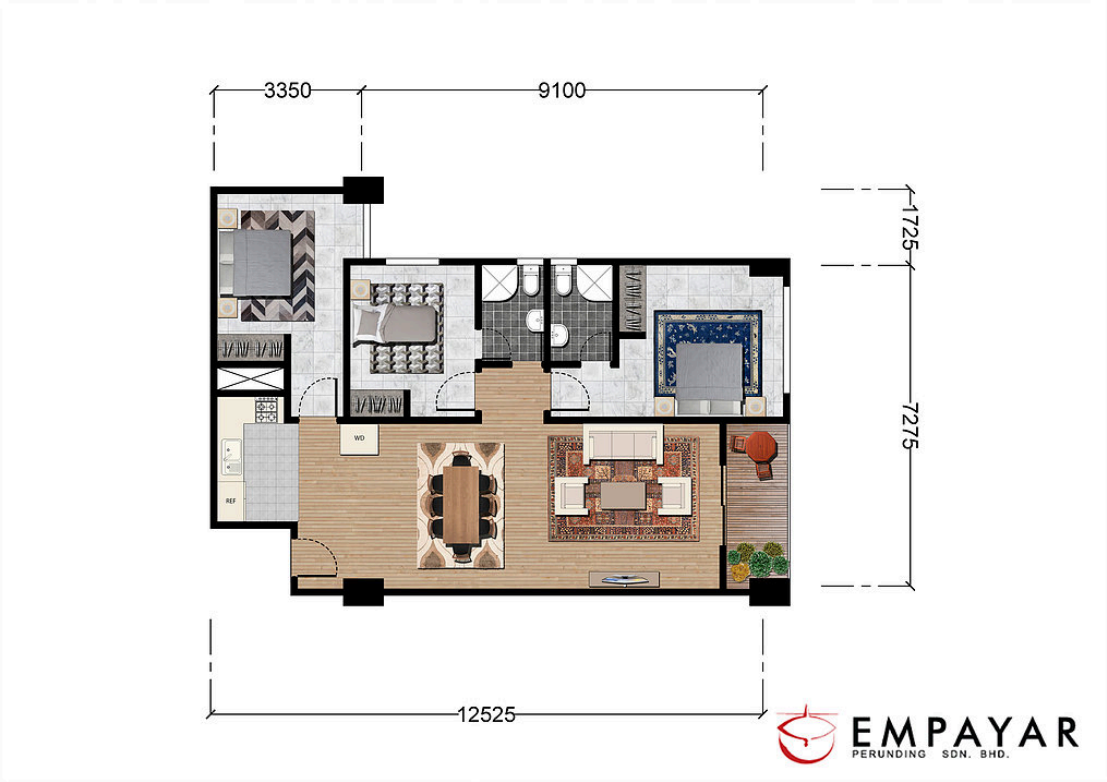

Image 4: One out of five units of the RTM residence proposal.

The remainder days of the week, I was involved with the residence part of the project. Where I had to finalize the apartment floor plans - adding furniture (i.e: washing machine, dryer, carpets, side tables etc.), a little touch ups. I was then to transfer the CAD files to Photoshop to colourize the images and to translate it to a presentation format so that the clients could understand better. After I was done, I e-mailed it to Mr. Kamil for confirmation and a few tweaks were missing out such as voids etc. And so I fixed them. As it is the early process of proposal, Mr. Kamil told me that the drawings wouldn't have to be so detailed - where you can see the windows are not single/double glazed.

Week 3 (16th – 20th January 2017)

Image 5: Front elevation of RTM apartment - revision 1.

After all the floor plans of the residence have been finalized, I was discussed to work on the front elevation of the apartment so that we could get a clearer view of how it looks like. I first work my way on drawing the front elevation while referring on the floor plans in CAD, and then start my way to 3D the building using Google SketchUp. By using this process, I felt that it wasn't really time-efficient because I was doing the work twice. So without wasting time, I dropped the CAD process and skipped to SketchUp. With that I could get the rough mass of the building so that tiny details could be added (i.e: sun shading devices, window sizes/shapes/pattern) into account later. In this part of the project, I learned new things about a building's structure - where columns didn’t only support it but they're also core columns, which also plays a role in services (i.e: staircases, elevator lobbies). I noticed that when I was finalizing the CAD file where the walls of these structures are thicker than the others and they were labeled as 'core columns'. Also, it has opened my eyes on how apartment buildings or any tall buildings are constructed and structured.

WEEK 4 (23rd – 27th January 2017)

Image 6: The difference of these two floor plans can be seen with the presence of voids in bottom image which act as air wells for ventilation, while top image has covered corridors which are air-conditioned.

A week later Mr. Kamil had an idea where he would propose 2 types of different floor plans of the apartment for the clients to choose from. The 2 consists of a normal high rise-apartment with voids acting as air wells for ventilation and a high end apartment, where all the corridors are covered and air-conditioned. So the plan was to change the floor plans. Mr. Kamil had given me a task where he roughly did the floor plans in CAD with single lines and I had to finalize the floor plans by adding thickness to the walls, adding doors and windows, furniture and so on. With that, I had to combine the units to form a level of the apartment and finish it with the Photoshop to translate it into presentation format.

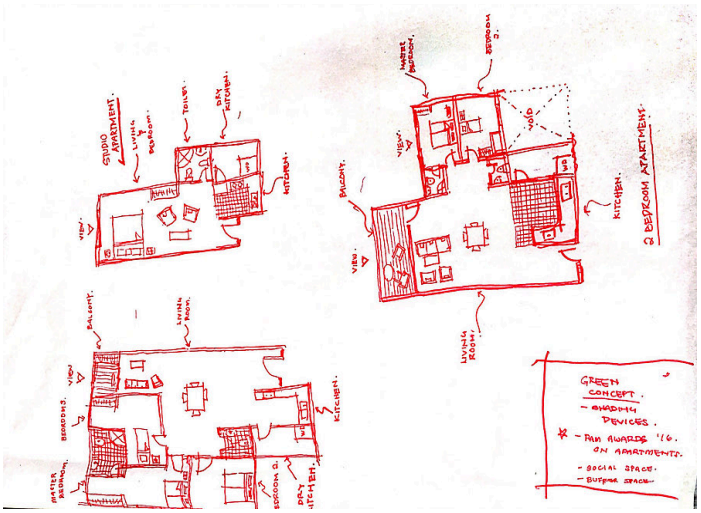

Image 7: Is one of my many sketches that I had to think of for the placements and designs of the rooms inside the units of the apartment. By sketching, this allows me to imagine and have a better understanding of the proportions of the units for me to design the rooms.

WEEK 5 (30th January – 3rd February)

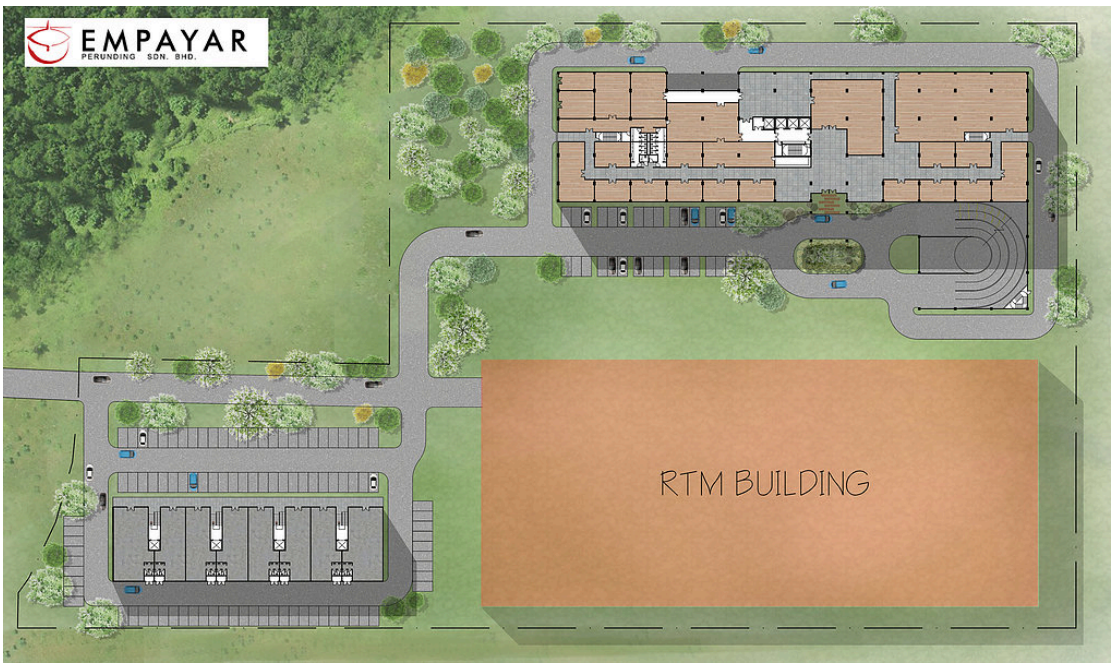

Image 8: Latest layout plan indicating building layouts, vehicular circulation etc.

This week I had to continue with the new layout plan of the proposed RTM building, which includes the 8 unit shop lots, and the residence. The layout plan is for the client to understand better the layouts of the building that the company is proposing. With this, only the ground floors are shown in the plans. The process starts from arranging the buildings in the correct arrangement in CAD and then to transfer it to Photoshop for post-processing and in final to put it in the presentation slides. The main RTM building wasn't completed yet, so I had to improvise by adding an indication of it as seen in **Image 8**. In my opinion, the importance of a layout plan is to show the circulations of vehicular and pedestrian, the plot ratio to have a better understanding of what is proposed. In that case, the roads, buildings, parking, site boundaries, vegetation are all clearly indicated and shown.

After this was done, Mr. Kamil updated the floor plans for the apartment by subtracting a few units to add a garden, which results having a greener building. And so I updated the 3D in SketchUp with the new changes.

WEEK 6 (6th February – 10th February)

I was told to continue on the layout plans of the RTM residence. What I had to do was to correct and improvise any mistakes made on CAD and also 3D, which was on SketchUp. The little things that I had to correct was furniture arrangements, void indications, and so on. I was also told to extrude the new floor plans of the residence so that we could see the mass of the proposed building. Fortunately I was guided by one of the employers there, who is also a lecturer of UKM. He taught me to follow the 'signature' of the company's architectural style – adding more greens by subtracting some of the units of the apartment and replacing them with an open garden. What I've learned from this was that the users could socialize more with each other, and by adding more greeneries, the building will be more sustainable.

WEEK 7 (13th February – 17th February)

This week was to continue the 3D of the apartment. It took me a long time because it was my first time extruding a high-rise building and the amount of details was overwhelming. On top of that, I had to think of the design of the façade of the building and it took me a long time because I was really experimenting with it but my main goal is to have it more sustainable as it was the goal of the company. This helped me broaden my view of green design and sustainability. The week goes on as I was designing the façade of the building.

WEEK 8 (20th February – 24th February)

Image 9: Front elevation of RTM apartment - revision 2, where sky gardens were added.

After the 3D was done, I showed it to my supervisor to have any comments for any changes to be made. I was told to change some of the heights of the walls, designing the roofs for the main entrance and the pool, designing a few of corner mirrors and applying them to some levels of the apartment, changing some dimensions of the doors and windows etc. This sharpened my skills on 3D renderings where I had to experiment on a lot of new designs.

Conclusion

Throughout my 2 months of internship at Empayar Perunding, I was mostly learning and adapting about schematic design such as sketching, 3D modeling, rendering and preparing presentation drawings. I also learned some information on contract documentation like preparing architectural drawings in regards to location, building elements, fittings etc. Although the other elements weren't touched, I am fortunate enough to have kinds employers who were keen to teach me their skills so that I would have the perspective of the architectural industry. I gained great knowledge as I observed my employers and after having given advice about the job scope.