



DEPARTMENT OF BUILDING
UNIVERSITI TEKNOLOGI MARA
(PERAK)

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INSTALLATION OF FLOOR TILES FINISHES

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It is recommended that the report of this practical training provided

By

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entitled

INSTALLATION OF FLOOR TILES FINISHES

be accepted in partial fulfillment of requirement has for obtaining Diploma in Building.

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STUDENT'S DECLARATION

I hereby declare that this practical report is by my own work, except for extract and summaries for which the original references stated herein, prepared during a practical training session that I underwent at ABDAN PRESTIGE HOLDING SDN BHD for duration of 20 weeks starting from 23 August 2021 and ended on 7 January 2022. It is submitted as one of the prerequisite requirements of BGN 310 and accepted as a partial fulfillment of the requirements for obtaining the Diploma in Building.

.....
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ABSTRACT

A tile is a type of decorative and functional wall or floor material that's commonly used to cover various interior surfaces. They are mainly made up of clay or any other type of material. These materials are also made from recycled content. The process of making tiles involves various steps, such as extrusion, pressing, and fire. After the tiles have been molded, they are subjected to fire to obtain the desired properties. Different types of tiles used in building construction are available in glazed or unglazed form.

This report is conducted for The Construction of Masjid Seksyen 24 at Jalan Pudina 24/39, Seksyen 24, 40300 Shah Alam, Selangor that's JKR project. The objective of this report to explain the suitability tiles installation base on the room in this construction. It will focus on the whole process of tiles installation. This report will also look to at the problem and the solution in tiles installation.

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CHAPTER 1.0

INTRODUCTION

1.1 Background of Study

A mosque, also called masjid, is a place of worship for Muslims. A mosque construct in variety shapes, design, material, and more. This case study is about tiles finishes installation which is located on floor in the mosque. In building construction, tiles are a key component in completing and beautifying both the interior and exterior of a structure.

Tile has various type of material, colour, type of surface that can be used in construction. Tile installation is important because it have many benefits, make the surface more elegant and more. Beside tile finishes, there are many other types of finishes, such as painting finishes, plastering finishes, and many more. However, the demand in using tiles in mosque construction is high. It is because tile have so many different type of material, colour, type of surface with so many functions. There are so many types of finishes, however, the aim of this report is to investigate the installation of tiles finishes.

1.2 Objectives

- i) To investigate the method of floor tiles finishes installation
- ii) To determine pros and cons of floor tiles finishes installation
- iii) To determine the problems and solutions in floor tiles finishes installation

1.3 Scope of Study

The study is carried out at Masjid Seksyen 24, Jalan Pudina 24/39, Section 24, 40300 Shah Alam, Selangor, Malaysia. The project had started on 28 November 2017 and still on going. This mosque gross floor area is 34,500 sqft that can fix 2,000 pax and the total area of this project is 3.6 acres. Therefore, this study focuses on floor tile finishes installation. Hence, the study is not only explained about method of floor tile finishes installation but to determine the pros and cons of floor tiles finishes installation, and to determine the problems and solutions in floor tiles finishes installation. Next, the study also explains some tools that be used to install the tiles. Despite this, the study does not focus on the quantity of labours, or duration matters. Observation, interview, and document reviews are the three approaches that must be used in order to complete the data. In conclusion, all further explanation relative to the study were explained as below.

1.4 Method of Study

For this case study, there are some methods be used to collect the data from project such as:

i. Observation

One of the learning methods is to make observations on how to install tile finishes by visiting the construction site. Every activity on site will be recorded by taking photographs and a few reports during the site visit. In my experience from the observation of tile finishes installation is the labour is very skilled.

ii. Interview Session

An interview can be mark as an important thing in order to collect data of the study from the experience's parties such as site supervisors, site engineers and the workers that carried out the construction at site. This is very necessary to gain a clear understanding of a project such as the method of any involved part of construction. After my interview, I gain more knowledge and understand how to make sure the tile installed neatly.

iii. Document review

Document review is also one of important thing to learn and understand about the project. We can refer to the document that has been approved from district/city council about all the client and site detail. Another example, we can also refer to site engineer about the method of tile finishes installation. In the tile installation plan, they are many details of type of tiles used in this construction such as size, material, and type of tiles surface.

CHAPTER 2.0

COMPANY BACKGROUND

2.1 Introduction of Company

Abdan Prestige Sdn Bhd is a bumiputra status company. Mainly in landscape and maintenance works. Abdan Prestige Holding SDN BHD is registered in grade G7. The company registered with Suruhanjaya Syarikat Malaysia (SSM) Pusat Khidmat Kontraktor Malaysia (PPK), CIDB Malaysia and Kementerian Kewangan Malaysia (MOF). The company also participate in construction works throughout the nation and public cleansing. Abdan Prestige Sdn Bhd is one of the top companies in Kuala Lumpur, Selangor, and Pahang. Abdan Prestige Holding SDN BHD has collaborated with several professional panel companies to meet client demands as well as facilitate all construction matters. The professional panel involved consists of panel of architects, panel of surveyors, panel of engineers and panel of contractors. There are also some general workers and skilled workers who have skills and experience in the fields of wiring, electricity, irrigation, and construction.

2.2 Company Profile

ABDAN PRESTIGE HOLDING SDN BHD was established and started operating in 13 September 2006, and currently active in landscape maintenance work, and construction work. This company runs government project and private project. ABDAN PRESTIGE HOLDING SDN BHD Base in Shah Alam, Selangor located at B 19/B, 48-2, Jalan Nelayan 19/B, Seksyen 19, 40300 Shah Alam, Selangor.

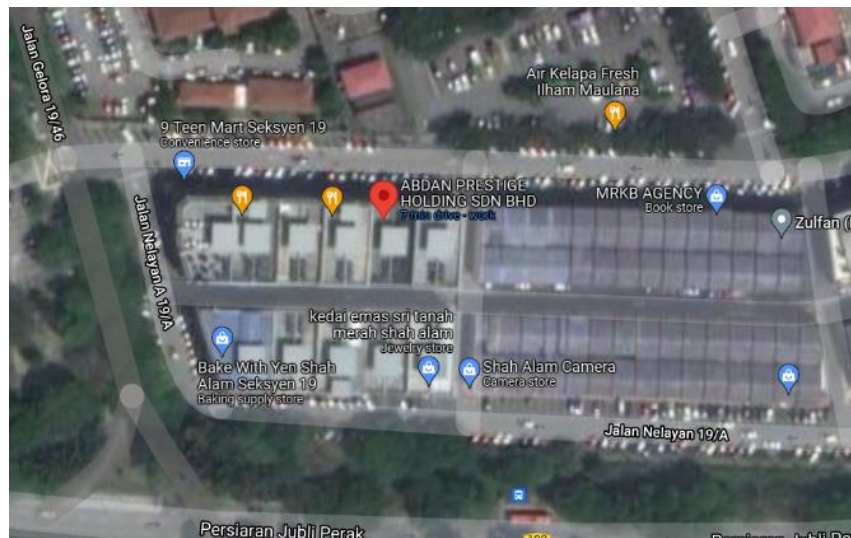
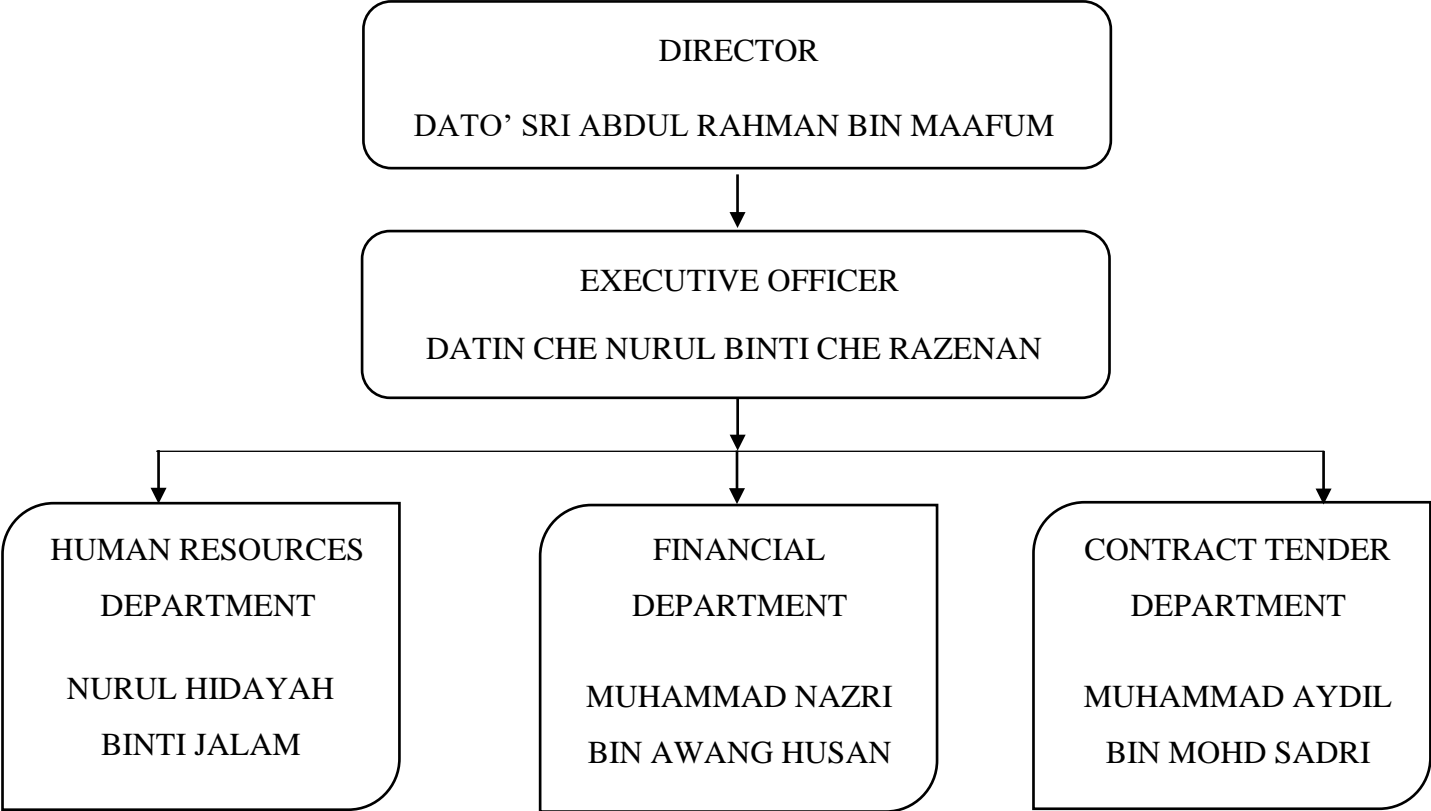


Figure 2.1: Location of the company base on the satellite map

With the company's mission to be a calibre contractor and free for dept, this company is ready to achieve the company's vision of being a company that have shares of the BSKL. This company's director is Dato' Sri Abdul Rahmad Bin Hj. Maarum. ABDAN PRESTIGE HOLDING SDN BHD can be contact via company email at abdan.prestige@gmail.com or directly contact through company number (03-55454499)

2.3 Company Organisation Chart



2.4 List of Project

2.4.1 Completed Projects

N o.	Project Title	Project Value	Start Date	Completi on Date	Projec t Durati on	Client
1	Kerja-Kerja Penyelenggaraan Dan Perkhidmatan Di Kompleks Unit Berkuda Putrajaya Dan Presint Diplomatik, Presint 15, Putrajaya (Sub-Kontrak)	4,398,295.89	2/1/2013	31/1/2016	36 Month s	Perbadan an Putrajaya
2	The Proposed Landscape Improvement Works In Medini Iskandar Malaysia, Johor Darul Takzim For Medini Iskandar Malaysia Sdn Bhd ("works")	2,079,117.50	10/12/2015	2/12/2016	13 Month s	Medini Iskandar Malaysia Sdn Bhd
3	Cadangan Membina 102 Unit Rumah Teres 2 Tingkat Yang Mengandungi 82 Unit A75 (22' x 75') Dan 20 Unit Jenis A80 (22'x80') (Fasa 1b) Di Atas Lot 53842 (Hs (d) 290186), Mukim Tebrau, Daerah Johor Bahru, Johor Darul Takzim -Nsc For Soft And Hard Landscape Works	537,131.68	23/1/2018	22/7/2018	18 Month s	Jallcon (M) Sdn Bhd
4	Proposed Developement On 448.61 Acres Of Land On Lot 18370 (Pt 21628) Mukim Of Semenyih, Daerah Hulu Langat, Selangor Darul Ehsan	750,000.00	15/5/2017	14/9/2017	4 Month s	UEM Sunrise Berhad

2.4.2 Project in Progress

No.	Project Title	Project Value	Start Date	Completion Date	Project Duration	Client
1	Maintenance For Landscape Services At Istana Negara, Jalan Duta, Kuala Lumpur	11,472,123.60	11/1/2018	31/10/2021	36 Months	Widad Builders Sdn Bhd
2	Cadangan Membina Dan Menyiapkan Masjid Seksyen 24, Shah Alam, Dalam Daerah Petaling, Selangor Darul Ehsan (Sub-kontrak) EOT no 4 in progress	12,298,991.75	28/11/2017	EOT NO 4 30/7/2021 EOT NO 5 (DALAM PROSES PERMOHONAN BERKAITAN PKP)	30 Months	JKR Negeri Selangor
3	CADANGAN MEMBINA DAN MENYIAPKAN 9 UNIT RUMAH TERES 20' X 61.8' (DUA TINGKAT), 33 UNIT RUMAH TERES 22' X 60' (SATU TINGKAT), SATU UNIT PENCAWANG ELAKTRIK, SATU UNIT LOJI RAWATAN KUMBAHAN MEKANIKAL DI ATAS PT 63807, JALAN KERAYONG, BUKIT KAPAR, MUKIM KAPAR, DAERAH KLANG, SELANGOR DARUL EHSAN	7,952,385.00	15/2/2021	15/2/ 2022	12 Months	ABDAN DEVELOPMENT SDN BHD

CHAPTER 3.0

CASE STUDY

3.1 Introduction to Case Study

The case study is about installation of floor tile finishes. The case study held in construction of Mosque Seksyen 24. The project where has started the construction on 28 November 20017 and predictions will be completed in March 2022. The cost of construction approximately RM12,298,991.75. Currently, the project progress is still on going. Hence, the study is not only explained about method of floor tile finishes installation but to determine the pros and cons of floor tiles finishes installation, and to determine the problems and solutions in floor tiles finishes installation. Next, the study also explains some tools that be used to install the tiles. Despite this, the study does not focus on the quantity of labours, or duration matters. This project is being carried out in Masjid Seksyen 24, Jalan Pudina 24/39, Section 24, 40300 Shah Alam, Selangor, Malaysia.

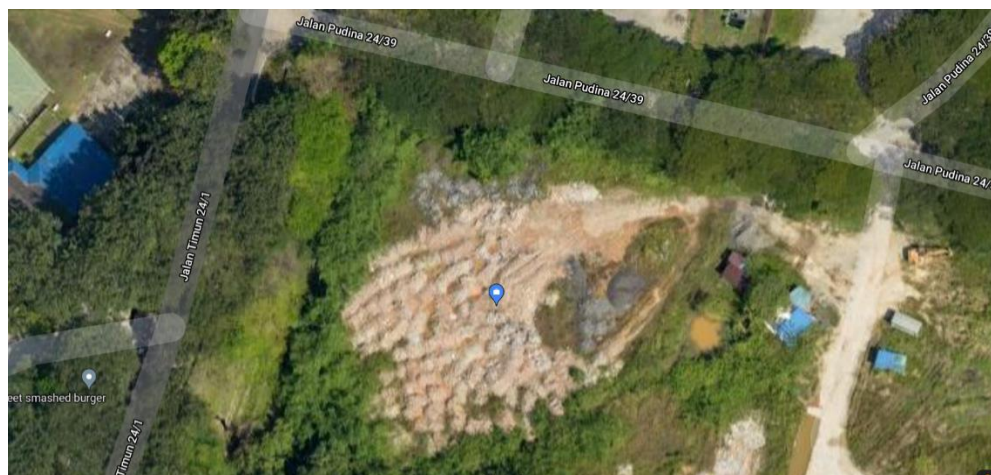


Figure 3.1: Site location base on Satellite map

This mosque gross floor area is 34,500 sqft that can fix 2,000 pax and the total area of this project is 3.6 acres.

3.2 To investigate the method of floor tiles finishes installation

Marking

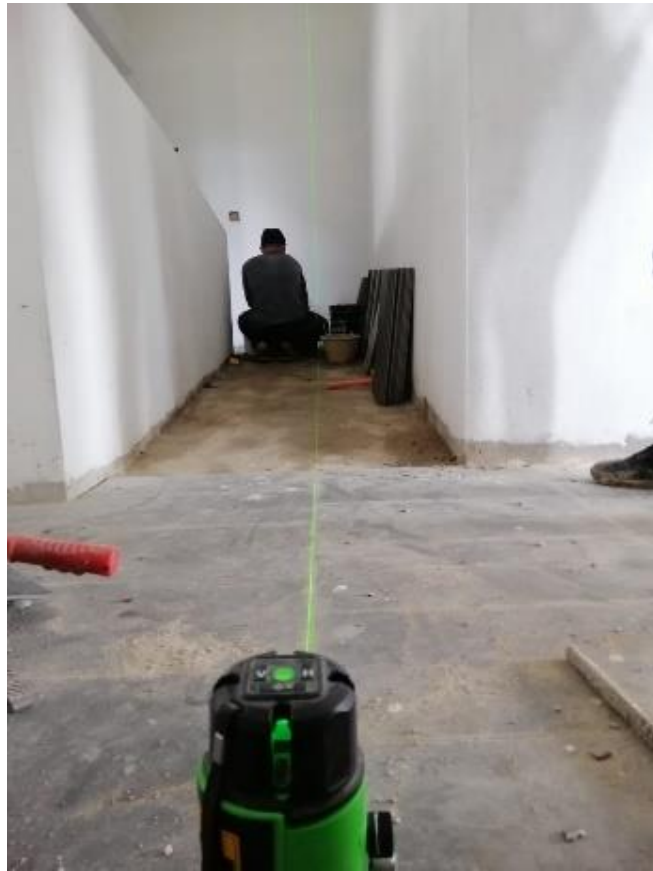


Figure 3.2.1 Using levelling laser light to marking tile

Marking tile line using levelling laser light to make sure the tile installed straight. This step is very important before installing the tile to make sure the done perfectly and can avoid from wastage.

Laying cement gum



Figure 3.2.2 Lay cement gum before installing tile

Cement gum laid to bond make the bond between tile and slab stronger. This step is to provide a strong support base for the tile, and to ensure that the individual tiles will appear flat when installed.

Cutting the tile



Figure 3.2.3 cutting the tile using tile cutter

The tile has to be cut before laying on cement gum. This step is only happened when the area is not fix to the tile's actual size. Before cutting the tile, measure the length of the tile and mark the outlines of the tile perfectly for cutting.

Laying tile



Figure 3.2.4 The tiles laid on the floor

Lay the tile perfectly based on the shop drawing. Use water level to make sure the tile installed in the same level.

Install tile spacer and tile levelling system



Figure 3.2.5 Install tile spacer and tile levelling system

Intall this tile pacer and tile levelling system to ensure that the pressure applied to the tiles is distributed evenly, therefore flattening the entire surface.

3.3 To determine the pros and cons of floor tiles finishes installation

There are various advantages and disadvantages to consider. This type of material can be used in a multiple environment.

PROS

1. Easy to maintain

- Tile flooring is known for being easy to maintain, which is one of its most appealing features. Any stains, dirt, or liquids that come into contact with it will sit on top of it and will not be absorbed. This makes mopping or wiping them away a breeze. Use a vacuum with a soft brush attachment or a broom to remove any loose debris and dirt from the floor on a regular basis to keep them clean. If stains do occur, practically any cleaner may be used to remove them without harming the tile flooring.

2. Water resistant

- Another advantage of tile flooring is that it is water resistant. The material has a protective layer on top that makes it stain and water resistant. This is especially significant in bathrooms and kitchens, where ceramic tile will last far longer than other materials. It also withstands high humidity conditions, so you won't have to worry about it getting ruined during the hot, humid summer months. Ceramic tiles will benefit any damp climate.

3. Durability

- Tile flooring is durable, and the tiles are difficult to break. If you obtain a professional installation, the tiles can last up to 20 years, or even longer if you maintain them properly. Even if one tile cracks, it's usually due to a violent impact, and you'll be able to easily replace it. Because you won't have to change tiles on a regular basis, you'll be able to keep your overall costs down.

4. Cost

- Tiled floors are usually affordable for most people. The ones at the bottom are made of cheap materials, while the expensive ones are of high quality. Tiled floors are cheaper than parquet floors, but more expensive than carpets. However, depending on the laying method and appearance, tiled floors may add value to the property in the long run.

CONS

1. Cold

- Tile floors will not absorb or retain heat well, which means it will get quite cold in the winter. When installed indoors, it means your feet will be shocked when walking on cold ground in the morning. This is an important thing to consider if you plan to install tile in a public area of your business where it will be uncomfortable for your customers. The only advantage of this is that during the summer it feels great to have people walking on the cold ground when it's hot.

2. Heavy

- The heavy tiling means it's not the best choice for an upstairs installation. If it is necessary to lay tiles on the upper floors of a commercial premises, the specialist must first check the integrity of the structure. You need to make sure you don't create extra stress that he can't handle.

3. Slippery and hard

- While tile is easy to clean due to its hardness, that means it's not necessarily comfortable to stand on. Resilient floors can often be softened with underlayment, but tiled floors cannot. Therefore, it is not the best material for people who have to stand for hours. However, you can place rugs or throw rugs where people are most likely to go, such as in front of the sink or behind the counter.

- Due to its hardness, this also means that the tile is smooth. As a business owner, you want to avoid any accidents when you can. Therefore, this unit should not be installed in places where water or liquids are frequently spilled on the floor, as it may cause injury to your personnel and leave damage. The same goes for public restrooms, as you don't want customers to slide over wet tiled floors.

3.4 To determine The Problems and Solutions in floor tiles finishes installation

3.4.1 Problems : Cement gum out of stock

- The work cannot be continue because cement gum is the important item to use in tiling installation.

Solution : Buy the new stock of cement gum.

- Main contractor or sub-contractor must be alert about the stock for avoid from delay od work.

3.4.2 Problem : Poor grouting

- The grouting cement will crack if not mix properly.

Solution : Make sure to mix grouting properly

- Use more grout than you might think is necessary then gently remove the excess without scooping out from the regions between the tiles.

CHAPTER 4.0

CONCLUSION

In conclusion, installing tiled floors is neither a difficult task nor an easy task. Therefore, special care and attention is required for perfect tiling. Installing tile have many benefits also make the surface more elegant. However, there is so many advantages by install the tile.

Grouting is one of the important items to make sure the tile will last longer. The method used during tile finishes installation are the common method that use in another site. The key point is the quality of the job done by the skilled labour can get the best result.

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- d) <https://www.builddirect.com/learning-center/flooring/pros-and-cons-of-tile-flooring/>