



اَبُو سَيِّدِي تَيْكُو لُو كِي مَارَا
UNIVERSITI
TEKNOLOGI
MARA

**DEPARTMENT OF BUILDING
FACULTY OF ARCHITECTURE, PLANNING & SURVEYING
UNIVERSITI TEKNOLOGI MARA
(PERAK)**

OCTOBER 2012

It is recommended that this Practical Training Report prepared

By

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Titled

DEFECT ON PLASTERING AND ITS METHOD OF RECTIFICATION

Be accepted in partial fulfilment of the requirements for obtaining a Diploma in Building

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(PERAK)**

OCTOBER 2012

STUDENT'S DECLARATION

I hereby declare that this report is 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 Persada Mbe Sdn. Bhd. for duration of 5 months starting from 21 May and ended 6 October 2012. It is submitted as one of the prerequisite requirements of DBN 307 and accepted as a partial fulfilment of the requirements for obtaining the Diploma in Building.

Name : Kamil Fahmi Bin Sazili

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That all, thank you

ABSTRACT

This report briefly explains on defect on plastering and its method of rectification. It produced refer on experience for five months at construction site, Temasya Glenmarie. This report is divided into various parts and initiated with company background and construction project background. Observation result finds that plaster always have defect or crack at wall surface. In this report, explained cause or reason plaster can experience crack at wall surface. It also explained, how to repair crack at wall surface. During observation carried out, it can be conclude, this report ably defined more detail how plaster can crack and how to repair it

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Economic development of a country is a point deduct to the country can compete with other developing countries. In line with scientific progress and technology, many opportunities in terms of occupation are wide's open in various fields. Construction industries also are not exempted from the scenario. This is because development technology and tool creation have just simplified do a job. Malaysia too are not left behind benefit opportunity that is present to compete with other developed country.

Capacity as that building to be standing strong based on basis strong ones. Planning and building foundation that is strong play important role to avoid building from collapse. Other elements also important to ensure the said building to appear perfectly for example plaster and finishes. Building will appear perfect if all of the elements are well combined. Without this elements building will look disabled and ugly.

To ensure the appearance of building are beautiful and perfect, plastering works should be give attention to prevent the said building disabled on eyesight aspect. Plastering works is not easy; in fact require attention during the installation of the building or the work. The more complicated design of the building, the more complicated the finishes.

1.2 Objective

Objective of the study for the study is to identify some of the problems that become issue. Among Them:

- 1.2.1 To identify the cause of plastering cracks of wall in building.
- 1.2.2 To identify the method of rectification of plaster at the wall.

1.3 Scope of Study

This study scope focused on the causes or reason how plaster can experience rift in wall surface. This used to happen in every building such as shop house, terrace house, bungalow and tall building.

Apart from that, this report also strikes method of rectification the crack and the reason why plaster can experience rift at wall surface. Therefore, the scope of this report explains:

1.3.1 Various type of crack happened at building wall surface.

1.3.2 Method of rectification.

1.4 Study Method

There are a few method of study that been used in this report. Among of them are:

1.4.1 Literature

Literature is one method to get information through book reading reference and journal. This is the easiest way to get information. Among material used are:

1.4.1.1 Printed material

Printed material based on learned materials such as book, journal and other printed guides. This substance great help to get information. These information are based on fact and picture on the topic discussed.

1.4.1.2 Website or internet

In science age and this technology, information can be achieve everywhere only regardless of time or place such as internet or website. Although information easy to be obtained through internet but not all information achieved from internet could be taken and completely trusted. This is because information that well off in usual internet only opinion of somebody. To ensure accuracy of information, only reference from graduate thesis that has do to the study or undergoing practical training can be taken. To ensure said information regarded as imitation, information achieved should be modified and are combined with information achieved from other sources.

1.4.2 Field study

This field research based on information achieved from study area. Information achieved is based on oral and solely opinion. Among Them:

1.4.2.1 Interview

This method is most effective meeting that to understand on study studied. Interview method carried out through bilateral conversation that involves issue and question. Interview involves party that is wise on study that wants to be done. Interview breeds me when issue is joined and answer reciprocated as information that wants to be gathered. With this study can be done with more detailed and and more understanding on defect in plaster.

1.4.2.2 Observation

Observation method carried out during at construction site. Through observation, exposure in visible actual situation and understandable with more detailed. Exposure in actual situation very different than theoretical learning achieved when learning. Usually observation method joined once with interview method so more understand information found.

1.4.2.3 Record

Method record usually carried out with way of writing all information achieved and photograph when making observation method. This method big because every record recorded can make as information to help do the study. Every picture taken are also important as material for working order in studies.

CHAPTER 2

COMPANY BACKGROUND

2.1 Introductions

After experiencing modest successes in the construction industry through a friendly arrangement, both Encik Ahmad Kamal Bin Kassani and Encik Wan Nadzir Bin Mohamad took great effort to put their capabilities and experiences in their respective fields together to enter the construction industry by acquiring WZR Property Sdn. Bhd. (“WZR”) with their formal appointments to the Board on 10th February 2004 as co-founder.

Within short span of 7 years, WZR has secured and completed 20 projects worth RM318.8 million and currently taking 9 projects due for completion by 2011 valued at RM170.7 million. All projects undertaken are situated at Klang Valley and in the states of Selangor, Negeri Sembilan, Pahang and Johor.

WZR is currently a recognized reputable Class A contractor with Bumiputera status registered with Pusat Khidmat Kontraktor (“PKK”), a privileged CIDB GRADE 7 Licensee with the Lembaga Pembangunan Industri Pembinaan Malaysia C1 permit holder with Jabatan Perkhidmatan Pembentungan covering waterworks nationwide and a registered contractor with the Ministry of Finance, Malaysia (MOF).

WZR takes great pride to be recognized as the sixth ranking contractor, in the just concluded November 2009 QLASSIC (Quality Assessment System In Construction) study of 145 projects undertaken by various contractors in the country, sponsored by

Construction Development Board Malaysia. This feat is highly commendable; in view that WZR is considered a new kid on the block competing against long established and well known players in our construction industry. This independent quality assessment of the high quality of WZR projects against the industry standards will certainly propel us to be highly considered by developers and project owners in all future property developments in the country and abroad.

WZR is proud to be a certified ISO 9001:2008 compliant company with Moody International under the scope of Project Management of Design & Provision of Building Construction and Civil Engineering Works. WZR is equally well supported by its principal bankers namely Malayan Banking Berhad, Bank Muamalat and CIMB bank.

All the above were made possible on the hindsight of the farsightedness of the management in increasing its capital base, building steadily a strong team of skilled construction manpower and subcontractors, maintaining a good and cordial relationship with its clientele, suppliers and bankers

Today, WZR property is well received in the construction industry. Looking forward, the company is confident of serving its loyal supporters with greater commitment and together it intends to build on better tomorrow for the future generations.

2.2 Company profile



Company name : WZR property sdn bhd

Certificate of registry number: 1006 A 2006 0138

Date of establishment : 07th December 1999

Registered address : 24A Jalan BK5A/2A, Bandar Kinrara
47100 Puchong, Selangor

Telephone Number :

Fax Number :

Company Email : wzr2bina@streamyx.com

Authorized capital : RM 5, 000, 000, 00

Paid up capital : RM 5, 000, 000, 00

Class : A- Pusat Khidmat Kontraktor

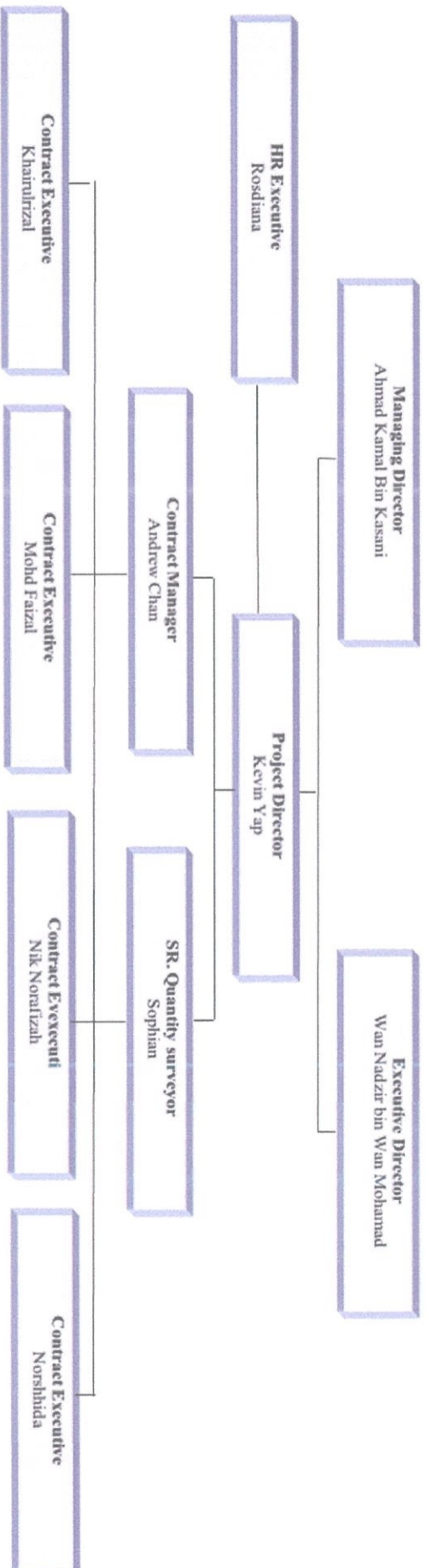
Grade : G7- tiada limit, B (PEMBINAAN BANGUNAN),
B04 (KERJA-KERJA AM BANGUNAN)

G7- tiada limit, CE (PEMBINAAN KEJUTERAAN
AWAM), B04 (KERJA-KERJA KEJUTERAAN
AWAM)

Status : 100% Bumiputera

Managing director : Ahmad Kamal Bin Kasani

2.3 ORGANIZATION CHART



2.4 LIST OF PROJECT

2.5.1 LIST OF ON-GOING PROJECT WZR PROPERTY SDN BHD

Num.	Project Title	Name of client
1	CADANGAN MEMBINA DAN MENYIAPKAN KOMPLEKS SEKOLAH MENENGAH AGAMA MAJLIS AGAMA ISLAM WILAYAH PERSEKUTUAN (SMA-MAIWP) BERASRAMA PENUH YANG MENGANDUNGI 1 BLOK AKADEMIK A1 - 7 TINGKAT, A2 - 5 TINGKAT, A3 - 8 TINGKAT & A4 - 8 TINGKAT; 1 BLOK KUARTERS 8 TINGKAT; 1 BLOK ASRAMA B1 - 10 TINGKAT, B2 - 10 TINGKAT & B3 - 4 TINGKAT; 1 BUAH RUMAH 2 TINGKAT BANGLO PENGETUA; 1 BUAH RUMAH PENGAWAL; 1 UNIT TMN PERMAINAN KANAK-KANAK; 1 BUAH PENCAWANG ELEKTRIK; DI ATAS LOT PT 6949, MUKIM KUALA LUMPUR, BANDAR SRI PERMAISURI, CHERAS, KUALA LUMPUR	MAJLIS AGAMA ISLAM WILAYAH PERSEKUTUAN
2	CADANGAN PEMBANGUNAN 118 UNIT RUMAH TERES 2 TINGKAT DAN 1 BLOK PENCAWANG LETRIK BERSAMA 2 KEBOK ALATUBAH DI FASA 8A5(a) DI ATAS SEBAHAGIAN LOT PT 35508, BDR KINRARA, MUKIM DAN DAERAH PETALING, SELANGOR	PERUMAHAN KINRARA BERHAD

3	CADANGAN MEMBINA DAN MENYIAPKAN 94 RUMAH TERES 2 TINGKAT DI ATAS SAIZ LOT (22' X 70') TERDIRI DARIPADA 8 UNIT RUMAH BERANGKAI JENIS A1 - 2 TINGKAT, 78 UNIT RUMAH BERANGKAI JENIS A2 - 2 TINGKAT, 8 UNIT RUMAH BERANGKAI JENIS A3 - 2 TINGKAT DAN 1 UNIT PENCAWANG ELEKTRIK DI FASA A-8-A, DI ATAS SEBAHAGIAN PEMBANGUNAN KOTA BAYUEMAS, JALAN LANGAT, KLANG SELATAN, KS9, KLANG BANDAR DIRAJA, SELANGOR DARUL EHSAN.	I & P KOTA BAYUEMAS SDN BHD
4	CADANGAN MEMBINA DAN MENYIAPKAN 81 UNIT RUMAH TERES DAN BANGLO , SATU(1) UNIT PENCAWANG ELEKTRIK, TTDI JAYA, SHAH ALAM, SELANGOR DARUL EHSAN	DRB-HICOM BHD
5	CADANGAN MEMBINA DAN MENYIAPKAN 123 UNIT RUMAH BANGLO 2 DAN 3 TINGKAT DI ATAS SEBAHAGIAN TANAH TTDI ALAM IMPIAN (Phase 1D), (Phase 1E) &(Phase 2) ALAM IMPIAN, SHAH ALAM, SELANGOR DARUL EHSAN	NAZA TTDI BHD

Table 2.4.1 Schedule of on-going project WZR Property Sdn. Bhd.

2.5.2 LIST OF COMPLETED PROJECT WZR PROPERTYSDN BHD

Num.	Project Title	Name of client
1	CADANGAN MEMBINA 8 UNITS RUMAH BERKEMBAR 2 TINGKAT DI ATAS SEBAHAGIAN LOT 45376, FASA 5A3, BANDAR KINRARA, MUKIM PETALING, DAERAH PETALING, SELANGOR DARUL EHSAN	PERUMAHAN KINRARA BERHAD
2	CADANGAN MEMBINA 95 UNIT RUMAH TERES BERANGKAI 2 TINGKAT (22' X 75') YANG MENGANDUNGI 18 UNIT JENIS A1, 18 UNIT JENIS A2, 1 UNIT JENIS A3, 1 UNIT JENIS A4, 1 UNIT JENIS A5, 2 UNIT JENIS A6, 1 UNIT JENIS B3, 1 UNIT JENIS B4, 1 UNIT JENIS B5, 1 UNIT JENIS B6, 11 UNIT JENIS C1, 11 UNIT JENIS C2, 1 UNIT JENIS C3, 1 UNIT JENIS C4, 1 UNIT JENIS C5 DAN 1 UNIT JENIS C6 DI ATAS SEBAHAGIAN LOT 45376 FASA 5A1, BANDAR KINRARA, MUKIM PETALING DAERAH PETALING, SELANGOR DARUL EHSAN	PERUMAHAN KINRARA BERHAD
3	CADANGAN MEREKABENTUK DAN MEMBINA 80 UNIT RUMAH TERES DUA TINGKAT (22' X 75') DI ATAS LOT PT 4714-4793, PACKAGE 1 FASA 9A3, BANDAR KINRARA, MUKIM DAN DAERAH PETALING, SELANGOR DARUL EHSAN	PERUMAHAN KINRARA BERHAD
4	CADANGAN TAMBAHAN DAN PERUBAHAN PADA BANGUNAN MASJID KINRARA DI ATAS TANAH REZAB MASJID, BANDAR KINRARA, MUKIM PETALING, DAERAH PETALING, SELANGOR DARUL EHSAN	MASJID KINRARA BERHAD

5	CADANGAN PEMBINAAN KOMPLEKS PUSAT LATIHAN DAN PEMBANGUNAN PEKEBUN KECIL SAWIT (PULAPES) DI STESEN PENYELIDIKAN MPOB KERATONG, PAHANG DARUL MAKMUR	LEMBAGA MINYAK SAWIT MALAYSIA
6	CADANGAN MEREKABENTUK DAN MEMBINA KOMPLEKS PULARIS (FASA II) DAN RUMAH KELUARGA (93 UNIT) PELBAGAI KELAS DAN KERJA-KERJA BERKAITAN UNTUK PEGAWAI DAN ANGGOTA TENTERA DI PUSAT LATIHAN RISIK (PULARIS) TEMERLOH, PAHANG DARUL MAKMUR	KEMENTERIAN PERTAHANAN MALAYSIA
7	PROPOSED CONSTRUCTION AND COMPLETION OF 46 UNITS DOUBLE STOREY SEMI DETACHED HOUSES CONSISTING OF PHASE 3P3(B) (18 UNITS) ON LOT PT 27561, 27562, (27563 & 27687), (27564 & 27688), (27565 & 27589), (27566, & 27681 & 27682), (27567 & 27683), (27568 & 27684), (27569 & 27672 & 27673), (27570 & 27674), (27571 & 27675), (27573 & 27677), (27574 & 27678), (27575 & 27679), (27576 & 27680), 27577, 27578, & PHASE 3P3(C) (28 UNITS) ON LOT PT (27579 & 27685), (27580 & 27686), 27581 - 27606, ALAM SARI MUKIM SEMENYIH, DAERAH HULU LANGAT, SELANGOR DARUL EHSAN	I & P MENARA SDN BHD

Table 2.4.2 Schedule of completed project WZR Property Sdn. Bhd.

More than been 13 years WZR Property Sdn Bhd involved in construction industry, there are many government project and private project that they had been managed and succeed. The On-going project of WZR Property Sdn Bhd consists of housing project and shop office at the area Selangor Darul Ehsan. WZR property have been successful of their previous project and become one of the companies that well known in Puchong, Selangor Darul Ehsan.

Many private projects undertaken by WZR Property Sdn. Bhd. Other than that, they also develop their property such as The Earth, Bukit Jalil, Kuala Lumpur. Building the in future project is Alam Damai, Cheras, Kuala Lumpur which are apartment adopting "*First Home Campaign*" which specially targeted for young families

CHAPTER 3

DEFECT ON PLASTERING

3.1 INTRODUCTION

Constructions industries are very synonymous with noise, dirt, vibration and environmental damage. Building process start with foundation construction that is strong such as pile cultivation and followed by building structures such as column and beam. After that, brickworks will take place. To avoid ugly surface of brick, brick wall surface will be closed with plaster to became beautify wall surface.

In this modern era, various technologies suggested to increase consumer convenience. Although the construction site equipped with various technologies that is sophisticated, it is not guaranteed the wall surface that is beautiful in wall or worker safety. For example, if foundation building not functioning well, wall surface can experience crack and will deform the building.

3.1.1 DEFINITION OF PLASTER

Plasterwork refers to construction or ornamentation done with plaster, such as a layer of plaster on an interior wall or plaster decorative moldings on ceilings or walls. This is also sometimes called pargeting. The process of creating plasterwork, called plastering, has been used in building construction for centuries.



Photo 3.1.1 Plastering work

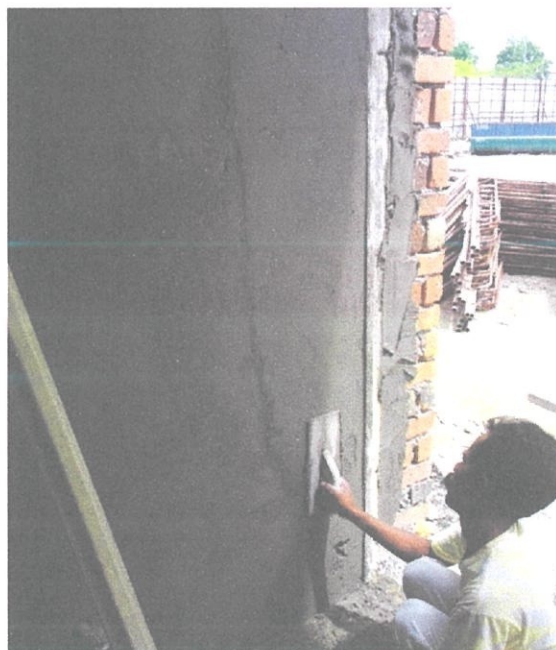


Photo 3.1.2 Flatten the plaster

Plaster provides a solid, seamless surface. It can be applied over wire lath, as well as over sheetrock. Spackle, or joint compound, is used to cover the taped seams of sheet rocked walls. Plaster help the surface became beautiful and usually internal plastering will be covered another layer which are skim coat to give smooth surface to the wall.



Photo 3.1.3 Worker doing external plastering

3.2 Project Background

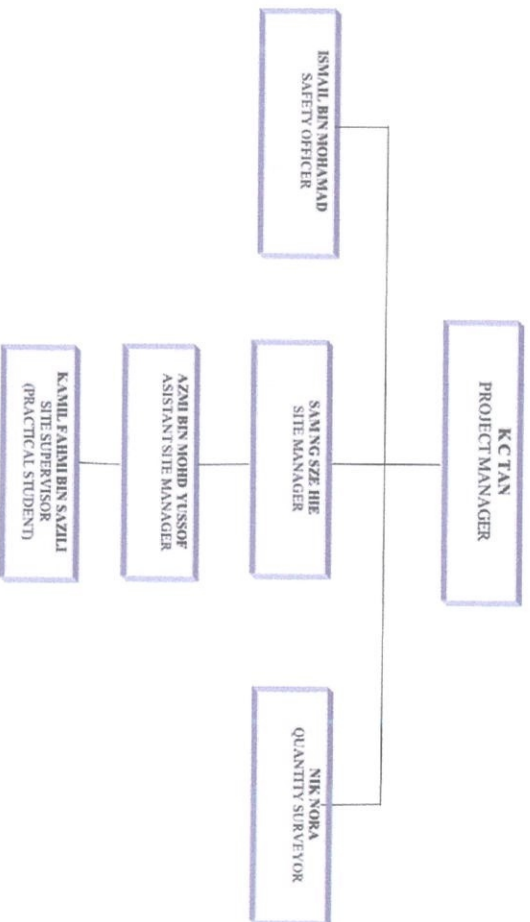
3.2.1 Introduction

PROJECT	:Proposed Construction And Completion Of 2&3 Storey 35 Units Office Consist Of Four(4) Corner Units, Twenty Seven (27) Intermediate Units And Four(4) End Units, One Units Of Substation And One Unit Of Refuse Centre Phase 3, Temasya Glenmarie On Lot64333, Skesyen U1, 40150,Shah Alam,Selangor Darul Ehsan
EMPLOYER	:TEMASYA DEVELOPMENT CO SDN BHD
ARCHITECT	:S&A ARCHITECT SDN BHD
STRUCTURAL ENGINEER	:KEMASEPAKAT SDN BHD
M & E ENGINEER	:JURUTERA BUDIMAN SDN BHD
QUANTITY SURVEYOR	:PERUNDING NFL SDN BHD
LANDSCAPE ARCHITECT	:PUNT GARDEN SDN BHD
CIVIL ENGINEER	:MINCONSULT SDN BHD
MAIN CONTRACTOR	:MUTUAL PERMIUM SDN BHD
CONTRACT AMOUNT	:RM 18,182,030.07

DATE OF POSSESSION :18th August 2011
DATE OF COMPLETION :17th February 2013
LIQUIDATED ACERTAINED DAMAGES :30 months

3.2.2 ORGANIZATION CHART

PROPOSED CONSTRUCTION AND COMPLETION OF 2 & 3 STOREY
 35 UNITS OFFICE CONSIST OF FOUR (4) CORNER UNITS, TWENTY
 SEVEN (27) INTERMEDIATE UNITS AND FOUR (4) END UNITS,
 ONE UNIT OF SUBSTATION AND ONE UNIT OF REFUSE CENTRE
 PHASE 3, TEMASYA GLENMARE ON LOT 64333,
 SEKSYEN U1, 40150, SHAH ALAM,
 SELANGOR DARUL EHSAN



3.2.3 Location of project



Photo 3.2.1 Location of the project

(source: maps.google.com)

3.3 DEFECTS ON PLASTERING

3.3.1 Cause of plaster crack

Plaster is layer that cover up rock surface. Nevertheless, it can experience crack on its surface. It is always occur in all buildings all over the world. Crack on plaster will cause plaster look disabled or ugly. They are various reasons plaster can experience rift. Rift in plaster that used to happen is:

- a) Non-structural cracks
- b) Structural cranks
- c) Debonding
- d) Lack of hardness
- e) Grinning
- f) Expansion
- g) Popping

3.3.1.1 Non-structural cracks

Crazing is a network of fine cracks, in a hexagon pattern, which are across hexagon. Craze cracks are fine and shallow and not extend to the whole depth of plaster. They are usually the result of overtrolling a rich mix which high cement content or using a sand that containing an excessive amount of dust. (www.cnci.org.za ,2009) Often occurs within few hours the plaster being applied to the wall and cracks may hardly be visible until dust or moisture makes them noticeable.



Photo 3.3.1.1 cracking at the wall

Craze cracks can be covered using reasonable quality paint. Map cracking is similar to crazing but it is deeper than craze cracks (sometimes going through plaster). This cracks happen because of high cement content and dry too quickly because the evaporation. The wall is not protected from sun and wind. (www.cnci.org.za ,2009)

3.3.1.2 Structural cracks

Some cracks visible in the plaster may result from cracking of the wall. It can be caused by different movement of the foundation, moisture expansion or drying shrinkage of the masonry units.(Azmi, 2012) This type of cracks often forms in straight vertical or horizontal line.

These cracks originate in the wall and not in plaster, repairing the plaster is ineffective to this cracks.

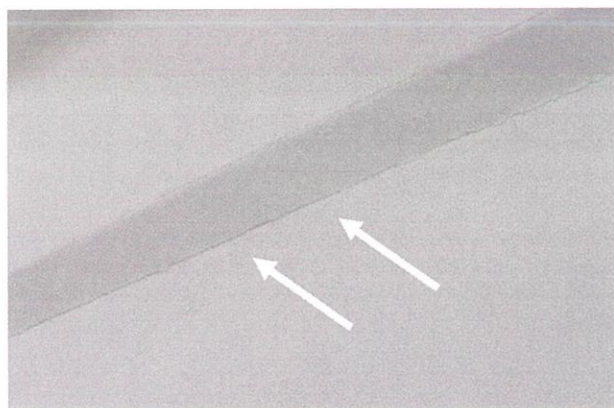


Photo 3.3.1.2 horizontal crack bellow the beam.

3.3.1.3 Debonding

Debonding of plaster can be noticed as a hollow sound when the surface is tapped. Plaster is inclined to curl the debond from the wall. The outside skin plaster is exposed to the air will shrink at different rate. (www.cnci.org.za ,2009) This happened especially through excessively thick of plaster layer. Debonding is generally results in inadequate preparation of substrate, it's important to make sure that the bond between plaster and the wall is as good as possible.

3.3.1.4 Grinning

Is a term given to the appearance of a plastered wall when the positions of the mortar joints are clearly visible through the plaster. Cause by difference in suction between masonry and motar.it is unlikely to lead to further cracking. Application of an undercoat or spartterdash coat before plastering will avoid grinning

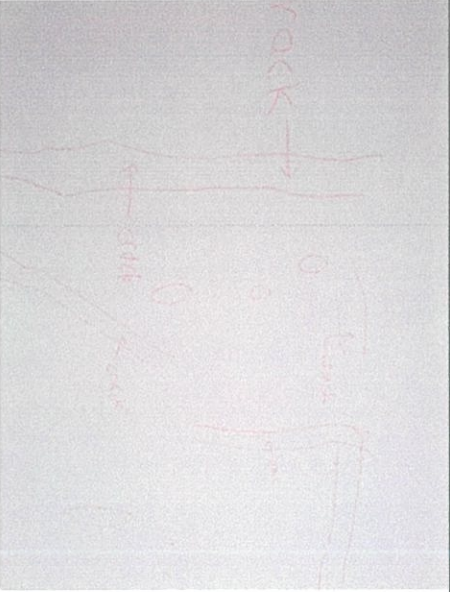
3.3.1.5 Expansion

This includes swelling, softening, layer cracking and spalling of the plaster. It is usually caused by the inclusion of proprietary gypsum based product in the mix. The only way to repair this expansion is to remove and replace the plaster with the correct mixture.(Ng, 2012)

3.3.1.6 Popping

Popping are conical fragments that break out of the surface of plaster leaving holes vary in size. It's caused by the presence of contaminant particles in the mix, reacting with the moisture in the mix. (Ng,2012) Once the cause of the popping has been removed, the hole can be filling with proprietary filler and painted over.

3.3.2 Repairing the crack surface

No	Operation	Method	Diagram	worker
1	Identify the crack	Search at the wall surface that have crack	 <p data-bbox="726 958 758 1444">Photo 3.3.2.1: wall that has been mark</p>	1 worker

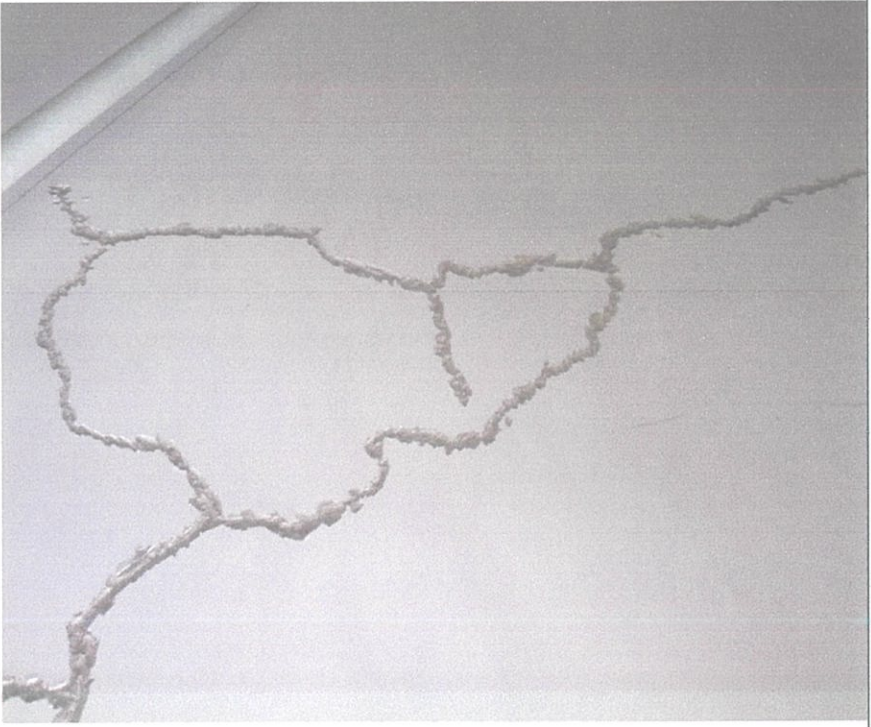

2	Knocking the wall	Knocking the wall that has been mark		2 worker
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Photo 3.3.2.2: knock the wal that has been mark

3	Cleaning	<p>Cleaning the dust by using water to make sure the plaster attach to the wall</p>	 <p>Photo 3.3.2.3: clean the hole that has been knock</p>	1 worker
---	----------	---	--	----------


4	Plastering	Plaster back the crack by using the mixture that have been perfectly mix		2workers
---	------------	--	---	----------

Photo 3.3.2.4: replaster the wall

5	Skim coat	skim coat the place that has been done plaster to get the smooth surface.		2 workers
6	Painting	Painting back the place that has been skim coat to get the match color of the wall surface		1 workers

3.3.3 How to avoid plaster crack

Plastering is the most important part of the finishing job in the project, whatever error make during plastering may be difficult to repairing it. The important process of the plastering is the mix ratio quality. A care should be taken from the type of sand that ordered and bricklayers. This is because the bonds are easily applying on walls. The sand must be clean, should not have dirt and any sand with dirt should be sieved. Cracks in building are a common occurrence and it is important to understand the causes and the measures to be taken for their prevention. Materials such as bricks, and mortar, which contain considerable quantity of water at the time of construction

3.3.3.1 General Measures For Protection Of Cracks

a) Selection of material

A good quality of building materials according to the specification is used. It will minimize the cracks in the building. The used of good quality material will give the perfect appearance.

b) Specifications for mortar

The ratio of the mortar should be according to the prescribed design. A care of mixing the material should be care and the ratios of the mix are according the specification. The perfect mixer will minimize the crack of the wall.

c) Weather Effect

In construction industry, the weather play main role for doing the works at the site. It's must be avoided in very hot and dry weather, and during very low temperature. Mixing of mortar, quantity of water in mix, soaking of bricks and workmanship have great effect on construction work. If possible the subsequent items of construction should be done after the drying of work previously done.

CHAPTER 4

4.1 CONCLUSION

Overall, it can be conclude that the cause of plaster having is due to several points. It will be more complicated when it happen because the method of repairing the crack are not suit for the cause of crack. The procedure of repairing plaster is a complicated task because there are many things to be done such as knocking the crack surface. These processes require a systematic arrangement of work. The key to successful and smooth progress of the repairing plaster is depends on the skilled worked and the method that using for repairing the crack.

Therefore, as a responsible person at the site, these matters have to take seriously and take action to settle the problem. The crack can be happen because of the brickwork. Supervisor has to supervise all workers to follow the entire rule and doing the work perfectly to avoid defect on the future. It will help other worker to do their job perfectly without any mistake. Besides that, communication between all the supervisor and worker is important because to ensure all works can move on easily and smoothly and no problems will appear. It also can save in term of cost and time.

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Responsible person

1. Mr Sam Ng Sze Hie
Site manager of WZR property Sdn. Bhd.
2. Azmi bin M. Yusop
Assistant site manager of WZR Property Sdn. Bhd.

APPENDICES

Appendix 1

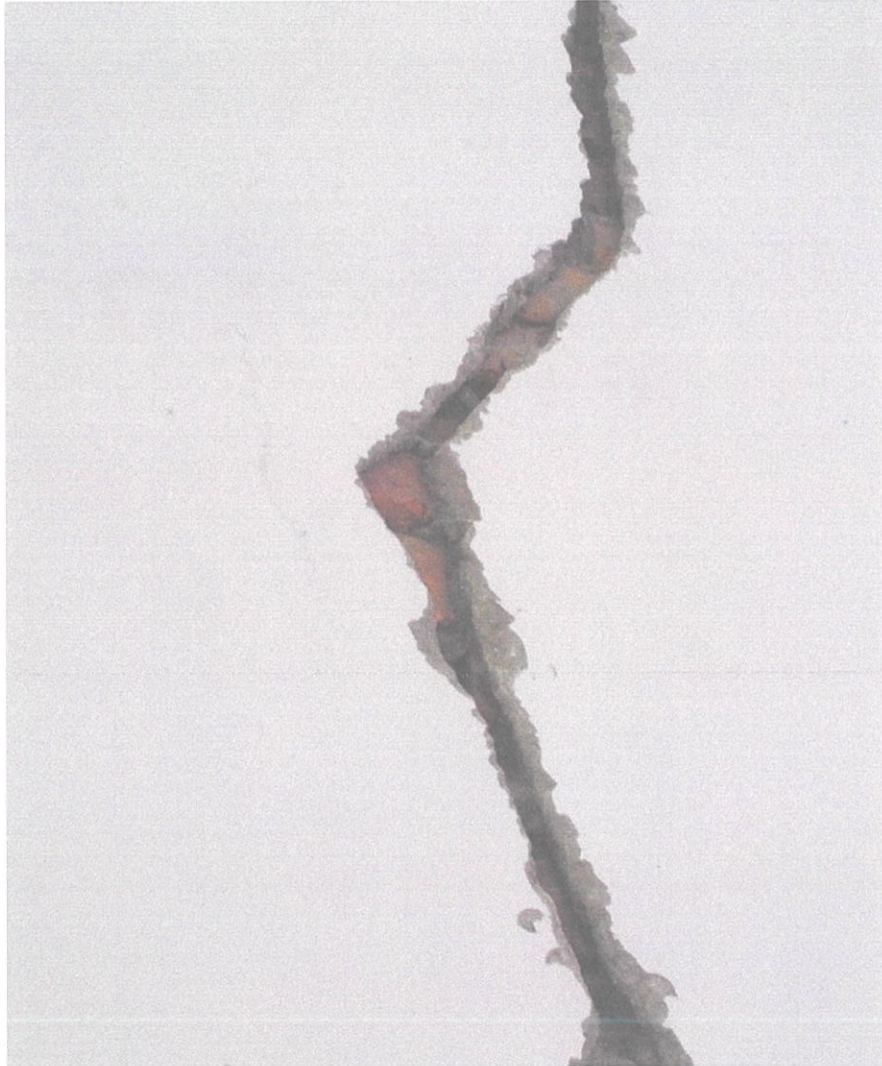


Photo : After knocking the crack part.

Appendix 2



Photo : External wall before plaster

Appendix 3



Photo : The thickness should be plaster

Appendix 4



Photo : External plastering in-front main door

Appendix 5



Photo; Marking the thickness of external plastering

Appendix 7



Photo: Walcrete cement is using for the plastering

Appendix 8

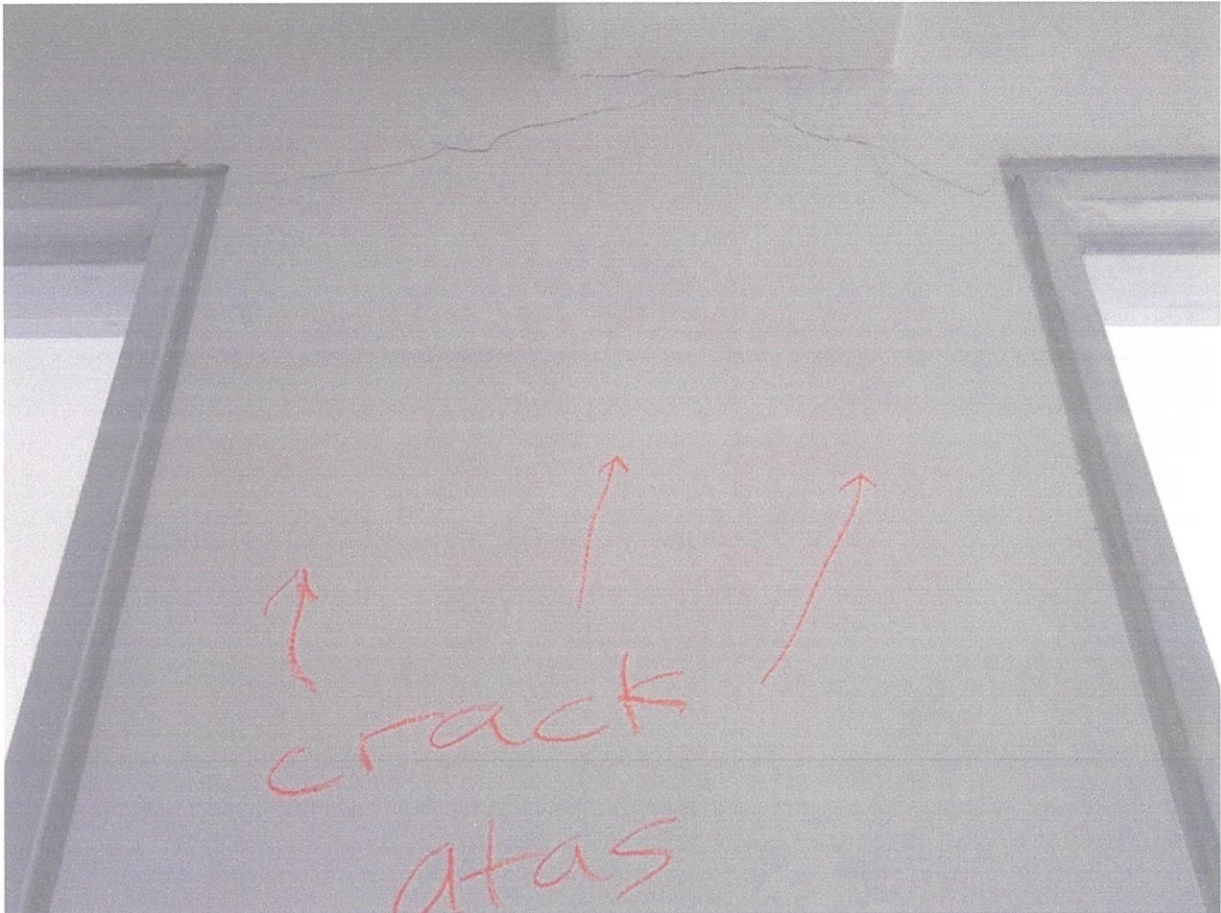


Photo : The cracking plaster