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FACULTY OF ARCHITECTURE, PLANNING AND  
SURVEYING**

**UNIVERSITI TEKNOLOGI MARA  
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**CONDITION SURVEY AT HOSPITAL  
SULTAN HAJI AHMAD SHAH, TEMERLOH.**

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**PRACTICAL TRAINING REPORT**

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## ACKNOWLEDGEMENT

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Other than that, I also thankful to my practical supervisor that is Pn. Intan Bayani Binti Zakaria and Puan Maryati Binti Zahari, because they have guided me to do the condition survey report. They also give the information about the practical information. More than that also thanks you to my mum and dad because they give support to finish this report.

Lastly, thank you to my entire classmate (AP1196B) because they always give information and share their opinion to complete this report. We are also do the report at the same time although we are in different places.

# CHAPTER 1

# DETAIL OF

# PROPERTY

## 1.0 INTRODUCTION

In the survey work, we are required to do a building condition survey work. We have to survey for the internal and external of the building. We also have to identify the building defects, it possible causes, it remedies and also to analysis of the defects expend in the future. After that, the report should be prepared to be documented.

As Building Survey student, we need to provide professional advice in every aspects of property and construction in the building. This surveying is focus on defects in Hospitals Sultan Haji Ahmad Shah, Temerloh. So we have to define the defect, the causes of defect and the remedies work for the defect.

- i. From the study, we can define the problem appear at the building and needed to maintenance.
- ii. We also define about causes of the defect and its remedies.
- iii. We have carried out a building survey and doing analysis of building condition.

It is recorded that have been inspected this building for once for a month, from 9.00 am till 12 pm. The inspection has been carried out by engineer, En MohdRidhwanHizami Bin Abdul Rashid, his assistant, En. Saiful Bin Sukimi), Radicare staff and user.

## 1.1 DESCRIPTION OF PROPERTY / BUILDING

### BACKGROUND

Hospital Sultan Haji Ahmad Shah constructed in June 2002 until 15 January 2005. This project was completed within 34 month. The cost of construction was 480 million. There are nine floors that can be occupied in this hospital. The purpose of this construction is to replace the uses of Hospital Mentakab.

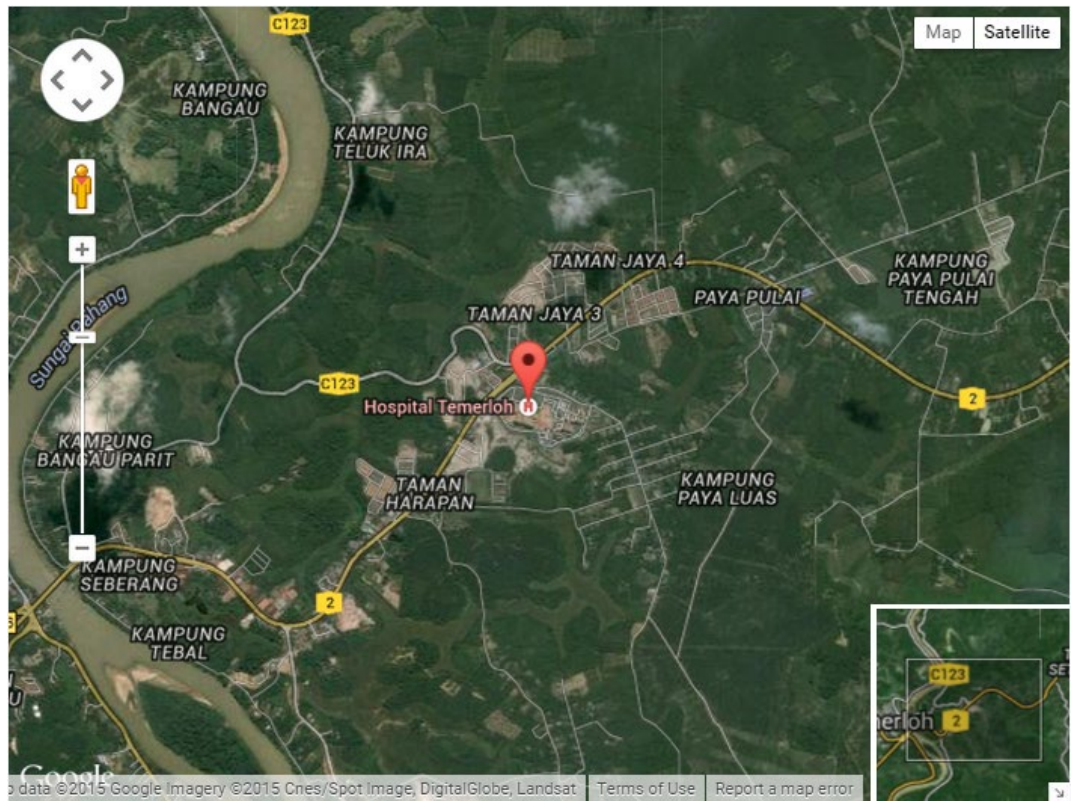
Besides that, the hospital was officially opened to public on 27 March 2006. It was officially lunch by Sultan Haji Ahmad Shah. The hospital was served the growing healthcare needs of not only the district of Temerloh, but as a referral centre for Kuala Lipis, Raub, Maran, Bentong, Jerantut and Bera.

More than that, various healthcare services of the hospital were started in stages between March 2005 and 16 April 2005. The hospital was officially opened by Sultan Haji Ahmad Shah of Pahang on 27 March 2006. The name change from Hospital Temerloh to Hospital Sultan Haji Ahmad Shah was in recognition of the Sultan's graciousness in consenting to the launch.



**Photo 2.1: Hospital Sultan Haji Ahmad Shah**



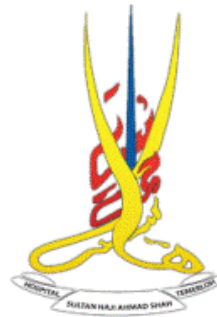


**Photo 2.3: The Location Plan**

Source: <https://maps.google.com.my/>

## 1.2 LOGO, VISSION, MISION AND OBJECTIVE OF HOSPITAL SULTAN HAJI AHMAD SHAH

### 1.2.1 LOGO



س - Sultan

ح - Haji

ا - Ahmad

ش - Shah

#### Meaning symbols on the logo

1. Gading - Symbol of strength
2. The yellow, red and blue - the corporate Coat Ministry of Health (MOH)
3. Combined ح icons, س- form DNA (elements of human beings)
4. ا is needles (medical)

### 1.2.2 VISION

To create the services that provides health services where patients maximized.

### 1.2.3 MISSION

The mission is:

#### i. Simplify and enable people

- ❖ Maximize their health status
- ❖ Appreciate health as a valuable asset
- ❖ Enables the customer is responsible and act to improve their health

#### ii. Improving the quality of hospital system through

- ❖ Focus on customers
- ❖ Fair
- ❖ Efficient
- ❖ Keep the customer information
- ❖ Using affordable technology
- ❖ Innovative
- ❖ Where appropriate environment

#### iii. Through values

- ❖ Corporate Culture (caring, professionalism, and teamwork)
- ❖ Respect
- ❖ Community involvement

### 1.2.4 QUALITY OBJECTIVE HOSHAS

1. Establish basic data for quality improvement activities ‘Quality Improvements’ in Hospital Sultan Haji Ahmad Shah (HoSHAS) and examine the advantages and disadvantages of activity.
2. Identify problems in the structure and quality of human resources and establishing measures for the improvement of the Quality Assurance Program (QAP).
3. Standards set by higher authority (MOH, MSQH, and others).
  - National Indicator Approach (NIA)
  - Key Performance Indicators (KPI)
    - By programs / activities
    - Compliance & Outliers
    - Monitoring at Institution, State and Ministry levels
4. Hospital Specific Approach (HSA)

# CHAPTER 2

# LITERATURE

# REVIEW

## 2.0 INTRODUCTION

Building surveyor is ‘The person who making an inspection of building all types, so far as the nature, designed and structure of the building and condition of occupancy and furnishing allow, and preparing a report expressing an opinion on the condition and

standards of construction and recommending the extends of any necessary repairs and future maintenance requirements’

I want to produce a report about condition survey at Hospital Sultan Haji Ahmad Shah. The purpose of condition survey is to provide an opinion on the general condition of a building and give advice on any urgent or future repairs and the likely consequences of non-repair. The maintenance of the hospitals is carried out by Radicare Sdn. Bhd (M).Radicare Sdn Bhd is the outsource company that has been assigned to do the maintenance work at Hospital Sultan Haji Ahmad Shah.

The inspection was carried out by month and evaluated by engineers, assistant engineers, Liaison Officer for each service (Radicare) and user (Doctor). This inspection is to provide information to hospital staff about the role of concession company (Radicare).

## 2.1 DEFENITION OF MAINTENANCE

The definition of maintenance by British Standard (BS 3811 : 1984) is “Building maintenance is work undertaken in order to keep, restore or improve every facility, i.e. part of the building, its services and surrounds t an agreed standard determined by the balance between need and available resources, and to sustain the utility and value of the

facility”. There is several type of maintenance that can be use to main the physical life of building.

## 2.2 TYPE OF MAINTENANCE

### a) **Planned Maintenance**

Planned maintenance is scheduled maintenance to an object or item of equipment. It is scheduled to service visit carried out by a competent. It is to ensure that an item or equipment is operating correctly and to prevent or avoid any unscheduled breakdown and downtime.

### b) **Preventive maintenance**

Preventive maintenance is to carried out at predetermined intervals, or corresponding to a prescribes criteria, and intend to reduce the probability of failure, or the performance degradation of an item.

### c) **Corrective maintenance**

Corrective maintenance are carried out after the failure has accured, and intended to restore and item to a state in which it can perform its required function.

### d) **Routine/ Scheduled maintenance**

This is planned maintenance involves regular tasks done on daily, weekly or monthly basic for example cleaning services and switching on the air condition.

### e) **Condition Based/ Ad-Hoc maintenance**

This is the preventive maintenance initiated as the result of knowledge of condition of an item from routine or continuous monitoring.

f) **Emergency maintenance**

Emergency maintenance is maintenance that is necessary put in hand immediately to avoid serious consequences.

### **2.3 TYPE OF MAINTENANCE IN HOSPITAL SULTAN HAJI AHMAD SHAH, TEMERLOH.**

The maintenance of Hospital Sultan Haji Ahmad Shah, Temerloh is carried out by Concession Company that is RadicareSdn.Bhd. The service that is carried out by Radicare is Facility Engineering Maintenance Services (FEMS), Biomedical Engineering Maintenance



Services (BEMS), Clinical Waste Management Services (CWMS), Cleansing Services (CLS) and Linen Laundry Services (LLS).

This various type of services is carried out to make sure the operation of Hospital Sultan Haji Ahmad Shah, Temerloh is going smoothly without any breakdown. The Radicare Sdn. Bhd carried out the maintenance service from the beginning of the hospital operation. The maintenance service also been documented and been recorded in Central Management Information System (CMIS).

The engineer of the hospitals have to check in the document and in Central Management Information System (CMIS) to make sure the concession company (Radicare) do their work with the specific time. The deduction can be deduct to the concession company if they didn't do their work or late respond (late to do their work).

The objective of maintenance is :

- a) To retain the value of the property.
- b) To present a good appearance.
- c) To maintain conditions that will continue to fill its function.
- d) For the statutory requirement e.g. safety, health and welfare provision.
- e) To obtain high level of security.
- f) To exist a good environment for user and occupier.

- g) To maximize the efficiency of services available.
- h) To prolong the building life.

### 2.3.1 SCHEDULED MAINTENANCE

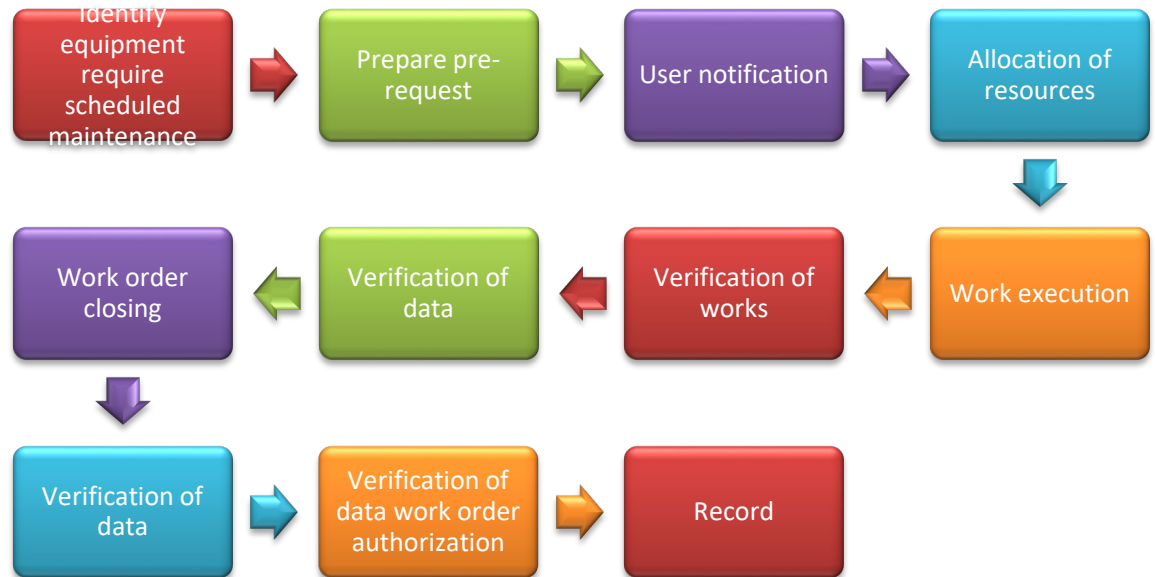
The objective of the scheduled maintenance is to define the procedure for schedule works maintenance for equipments and building facilities under the Facilities Engineering Maintenance Services (FEMS) and Biomedical Engineering Maintenance Services (BEMS).

The services also carry out to repairs and to restore to a specified condition.

The scope of unscheduled maintenance is:

- a) Carrying out Planned Preventive Maintenance
- b) Carrying out Routine Inspection
- c) Carrying out Scheduled Corrective Maintenance

#### **The Procedure of Scheduled Maintenance**



**FIGURE 7.1.1**The Procedure of Scheduled Maintenance

### 2.3.2 UNSCHEDULED WORK

One of the maintenance strategies in this hospital is Unscheduled Maintenance. The objective of the procedure is to define faults to buildings, plants and equipments that has been maintained by Facilities Engineering Maintenance Services (FEMS) and Biomedical Engineering Maintenance Services (BEMS). The services also carry out to repairs and to restore to a specified condition.

The scope of unscheduled maintenance is:

- d) Carrying out Breakdown Maintenance

- e) Carrying out Corrective Maintenance
- f) Carrying out Non-Maintenance Request

### The Procedure of Unscheduled Maintenance



**FIGURE 7.1.2**The Procedure of Unscheduled Maintenance

## 2.4 FACILITY ENGINEERING MAINTENANCE SYSTEM

The Facility Engineering Maintenance System (FEMS) is the systems comprise all of the parts or individuals assets which are necessary for the system to operate effectively. The maintenance services cover the:

- i. Electrical supply
- ii. Cold water supply
- iii. Hot water supply
- iv. Drainage system
- v. Sewerage system
- vi. Air conditioning and ventilation system
- vii. Fire protection system
- viii. Medical gas system
- ix. Steam supply system
- x. Communication system
- xi. Vertical transportation system
- xii. Lightning protection system
- xiii. LPG and Industrial Gas system

The Facility Engineering Maintenance System is covered all of the system including the building system. Building system is considered to be building fabric, wall, floors, ceilings, cupboards, furniture, and fixture. A request by the user to carry out breakdown maintenance and corrective maintenance or any other request additional to those normally provided excluding reimbursable works.

## 2.5 KEY DEDUCTION INDICATORS FOR FACILITY ENGINEERING MAINTENANCE SYSTEM (FEMS)

NO	INDICATORS	DESCRIPTION OF INDICATORS	PARAMETERS	WEIGHTAGE
1	Are all the functioning facility engineering systems which are required for use in god working order?	Facility Engineering System such as electrical system, water supply system, fire protection system, air conditioning system and etc. are to be assessed to ensure all system functioning at the time	No of system x user location x days for the month plus. No. of assets not included in systems x days for the month	0.19
2	Have PPM, routine inspection and scheduled corrective maintenance been completed for the month?	Planned preventive maintenance, routine inspection and scheduled corrective maintenance are to be checked to ensure all of them have been carried out according to the scheduled	PPM for the month, routine inspection for the month and scheduled corrective maintenance for the month	0.25
3	Have PPM, routine inspection and scheduled corrective maintenance been completed for the month on time to schedule?	PPM, routine inspection and scheduled corrective maintenance are to be checked to ensure all of them have been carried out according to the schedule.	PPM for the month, routine inspection for the month and scheduled corrective maintenance for the month	0.12

NO.	INDICATORS	DESCRIPTION OF INDICATORS	PARAMETERS	WEIGHTAGE
4	Are all applicable statutory requirements complied with and are the system operated correctly?	Certificates and licenses of electrical charge man, boiler man, firefighting equipment, etc. are to be checked to ensure they all valid and comply with the law. Correct operation and logbook records of the major systems including water, electricity steam etc. as required.	No. of assets and personnel required for legal compliance for the month and required systems	0.01
5	Has the testing and commissioning been witnessed?	Schedule of user training is to be checked to ensure all training is carried out according to schedule. User training includes fire drills, fire safety demonstrations, electrical outlet identifications, electrical safety protection etc. Well trained staff ensures facilities are operated efficiently and safely.	No. of testing and commissioning scheduled for the month	0.01
NO.	INDICATORS	DESCRIPTION OF	PARAMETERS	WEIGHTAGE

		<b>INDICATORS</b>		
6	Has the testing and commissioning been witnessed?	All scheduled testing and commissioning are required to be witnessed. New installations are required to be tested and commissioned before it is put into services. This ensures that the installations are functioning according to the specifications, and it is safe to be used. During Testing and Commissioning the equipment is tagged and all relevant data are logged into the asset database such that the Planned Preventive Maintenance scheduled can be prepared.	No. of testing and commissioning scheduled for the month	<b>0.01</b>

<b>NO.</b>	<b>INDICATORS</b>	<b>DESCRIPTION OF INDICATORS</b>	<b>PARAMETERS</b>	<b>WEIGHTAGE</b>
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7	Has the technical advice sought by hospital been provided?	All technical advice sought by the Hospital Director is to be provided in a timely manner. This will ensure the hospital will have the necessary advice and support form the contractor to make any technical decision. Condition appraisal for minor or reimbursable works also considered technical advice.	No. of technical requests for the month	0.01
8	Has appropriate response time been provided?	The contractor is required to respond to service request to minimize the time the equipment is not available for use.	No. of service requests for the month (excluding PPM)	0.06

NO	INDICATORS	DESCRIPTION OF INDICATORS	PARAMETERS	WEIGHTAGE
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9	Are all reports submitted on time?	A number of reports are required to be submitted so that verification of work done can be achieved.	No. of reports & records submitted for the month	0.4
10	Are all the reports & records accurate and correct?	Sampled data from all sources to be examined to ensure all data are correct. Data is required to be accurate all the times.	Total number of applicable records (Based on samples taken of these records)	0.4
11	Have all services requests been completed within the agreed time of 15 days?	The contractor is required to complete the repairs in the agreed time unless exempted by the Hospital Director.	Service requests for the month, plus requests not closed for the previous months (excluding PPM and reimbursable work)	0.19

(Source: Guidelines for The Application Of The Deduction Formula For The Privatization Of The Hospital Support Services)

**Table 8.1.1** Facility Engineering Maintenance System Key Deduction Indicators

## 2.5 KEY INDICATORS

### 2.5.1 Key Indicators (Equipment Functioning).

A deduction will be incurred when a complaint is received that any system or asset identified in the asset register is not available to provide the service when required. The Maintenance Information System (MIS) will also be used to generate demerit points. It is the contractor's responsibility to capture all assets in the assets register.

A deduction will be applied for the system when part of the system is not working in the area required for use. For example, in the occupied ward, one light does not operate therefore the deduction would apply. Likewise if a medical gas outlet is faulty and a patient is connected to another outlet or moved to another ward, a deduction will apply. Deduction will be applied daily until the fault is rectified. No deduction will be applied under this indicator if loaner equipment is provided. Loaner equipment must provide equal or better service to the agreement of the users. No deduction will be apply if the equipment is standby and is not required for use. No deduction will be apply to items proposed for Exemption / BER / Condemned until they are assessed by SIHAT. Deduction will be applied from the date of complaint if the application of for Exemption / BER / Condemned is not approved. Approval of the exemption list will be by the Hospital Director and BER items by MOH Engineering Division or JKR and condemned items by the hospital.

Thus, no deduction will be applied due to failure of a utility company to provide water or electricity. If the contactor fails his responsibility to ensure the standby generator and battery system operate a deduction will be applied to all equipment required to operate

on essential supply during power failure. Deduction will also applied to lack of water if a contingency plan has not been submitted. The water contingency plan should provide for two days on site storage.

**The parameter of the deduction application is:**

Number of user x User location x Days for the month. Number of asset not included in systems x Day for the month

### **2.5.2 Key Indicators (Planned Preventive Maintenance, Routine Inspection and Scheduled Corrective Maintenance).**

Planned Preventive Maintenance, Routine Inspection and Scheduled corrective maintenance are to be checked to ensure all of them have been carried out. Routine Planned Preventive reduces the downtime of the equipment. Routine Inspection is required to be carried out on a regular basic to ensure facilities are in good working conditions. Scheduled corrective maintenance needs to be carried out promptly to place equipment and facilities back in good condition again.

The application of deduction:

A deduction is incurred if PPM, Routine Inspection and scheduled corrective maintenance has not been completed for the month. If PPM, Routine Inspection and scheduled corrective maintenance is rescheduled and agreed by the hospital

### **2.5.3 Key Indicators (Planned Preventive Maintenance, Routine Inspection and Scheduled Corrective Maintenance to Schedule).**

Plan Preventive Maintenance, Routine Inspection and scheduled corrective maintenance are to be checked to ensure all of them have been carried out according to the schedule.

The application of deduction:

A deduction is incurred if the PPM, Routine Inspection and scheduled corrective maintenance is not completed within the scheduled time. If Plan Preventive Maintenance is rescheduled and agreed by the hospital then the

#### **2.5.4 Key Indicators (Statutory Requirements)**

Certificates and licenses of electrical charge man, boiler man, fire fighting equipment, high-pressure vessels and etc are to be checked to ensure they all valid and comply with the law. Correct operation and logbook records of the major system including water, electricity system etc as required.

The application of deduction:

A deduction is to be applied to all areas where valid certificates and licenses are not renewed and available for inspection.

#### **2.5.5 Key Indicators (User Training)**

Scheduled of user training is to be checked to ensure all training is carried out according to the scheduled. This is includes fire drills, fire

safety demonstrations, electrical outlet identifications and etc. Well trained staff ensures facilities are operated efficiently and safely.

The application of deduction:

A deduction shall be incurred where each user training scheduled for the month is not conducted. A deduction shall also be incurred each month if a training scheduled not been prepared.

### **2.5.6 Key Indicators (Testing & Commissioning)**

New installations are required to be tested and commissioning before it is put into service. This ensures that the installations are functioning according to the specifications and it is safe to be used.

The application of deduction:

A deduction is to be applied to the contractor if the witnessing and verifications of the Testing and Commissioning of the new equipment is not completed.

### **2.5.7 Key Indicators (Technical Advice)**

All technical advice sought by Hospital Director is to be provided in a timely manner. This will ensure the hospital will have the necessary

advice and support from the contractor to make any technical decision. Condition appraisal for minor or reimbursable work is also considered as the technical advice.

The application of deduction:

A deduction will be applied when technical advice sought is not supplied. A complaint should be registered when advice is not provided in the agreed time limit. The advice given must be writing or verbal.

### 2.5.8 Key Indicators (Response Time)

The contractor is required to respond to service request to minimize the time the equipment is not available for use.

The application of deduction:

A deduction is to be applied to the Contractor if the response time is in excess of 30 minutes for critical calls and 3 hours for non critical calls. The response time is to be signed off on the works request by the user.

### 2.5.9 Key Indicators (Report)

A number of reports are required to be submitted so that verification of work done can be achieved.

The application of deduction:

A deduction shall be incurred for each report not be available for the month as required. The reports are required to be readily available. Data in hard copy also be presented in the legible preferably typed manner. Reports are to be submitted to the Hospital Director.

### 2.5.10 Key Indicators (Correct Data)

Sampled data from all resources to be examined to ensure all data are correct. Data is required to be accurate at all times.

The application of deduction:

A deduction shall be incurred if any inaccurate or incorrect data is identified. The indicator shall be applied to hard copy records as well as data recorded by Central Management Information System (CMIS).

### 2.5.11 Key Indicators (Work Request)

The contractor is required to complete the repairs in the agreed time unless exempted by the Hospital Director.

The application of deduction:

The deduction will be applied for any work request not complete within the agreed time. One deduction will apply for each month the service request has not been closed. In the first month the time period of 15 days is provided to close the service request. In subsequent months a deduction will be apply immediately. Deduction will not be applied if the contractor can prove exceptional sequences such as force majeure. A deduction will be apply to this indicator even if loaner equipment is provided. Deduction will not be apply to reimbursable work.



## 2.6 COMPLAINT FORMS / EXAMPLES OF HARD COPY FOR WORK ORDER CLOSED

13/2

**Radicare** **WORK ORDER** 86 Form: WO Rev 2.1

3656145

WO No. <u>W0082/99601/2015</u>		WO Date <u>10/2/15</u>	
Asset No. <u>082003117</u>		Description <u>FCR</u>	
Hospital <u>HOSHAS</u>		Location <u>XRAY</u>	
<b>Request From</b>			
Requestor <u>AIMAN</u>		Designation <u>JR XRAY</u>	
Phone <u>1200</u>	Date <u>10/2/15</u>	Time <u>1000</u> (am/pm)	
Request Details <u>Mesin scan burmesatoh.</u>			
<small>Below This Line For Radicare Use Only</small>			
<b>WO Receipt and Classification</b>			
Received By <u>SAMI</u>		Date <u>10/2/15</u>	Time <u>1000</u> (am/pm)
WO Cat. <u>45</u>	WO Type <u>80</u>	WG Code <u>AW</u>	
Target Date <u>15/2/15</u>	Priority <u>N</u>	Est Hrs. <u>1:00</u>	Parts <u>Yes</u> (No)
Cancelled By <u>NA</u>	Reason <u>NA</u>		
<b>Assessment Details</b>			
Responded By <u>NA</u>		Date <u>10/2/15</u>	Time <u>10:15</u> (am/pm)
Root Cause <u>Error 10460</u>			
Verified By <u>ABD RAZAK BIN ALIAS</u> <u>JURU X-RAY (D) U32</u> <u>HOSHAS, TEMERLOH</u>		Date <u>10/2/15</u>	Time <u>10:15</u> (am/pm)
Signature <u>[Signature]</u>		Designation	
<b>Tasks / Employee</b>			
Task Code <u>101</u>		Task <u>Repair</u>	
Start Date/Time <u>10/2/2015</u>		<u>11:00</u> (am/pm)	
End Date/Time <u>11/2/2015</u>		<u>17:00</u> (am/pm)	
Employee Code 1 <u>084222</u>	Prep. Hrs <u>0:10</u>	Rep. Hrs <u>1:00</u>	Ver. Hrs <u>0:30</u>
Employee Code 2 <u>095242</u>	Prep. Hrs <u>0:00</u>	Rep. Hrs <u>2:00</u>	Ver. Hrs <u>0:00</u>
Employee Code 3 <u>053797</u>	Prep. Hrs <u>0:00</u>	Rep. Hrs <u>1:00</u>	Ver. Hrs <u>0:00</u>
<b>Spare Parts</b>			
Part Code <u>NA</u>	Description <u>NA</u>	x	QTY <u>NA</u>
<u>NA</u>	<u>NA</u>	x	<u>NA</u>
<u>NA</u>	<u>NA</u>	x	<u>NA</u>
<b>Completion</b>			
Action Taken <u>10 barang di/m mesin. Auto shutdown. Checking, Keluaran IP yang sangat. Test semua part. Unit test OK.</u>			
QC PPM <u>NA</u>	QC Uptime <u>009</u>	DVO Name <u>[Signature]</u>	
Asset Required But Not Available <input checked="" type="radio"/> Yes <input type="radio"/> No		DVO Signature <u>[Signature]</u>	
Handover Date <u>10/2/15</u>	Time <u>4:15</u> (am/pm)	SITI AZMAN BT FABELILAH Biomedical Engineer Radicare (M) Sdn. Bhd.	
Accepted By <u>ABD RAZAK BIN ALIAS</u> <u>JURU X-RAY (D) U32</u> <u>HOSHAS, TEMERLOH</u>		Signature <u>[Signature]</u> Designation	
<b>Cost Details</b>			
Resource Type <u>In-house</u>	PO No. <u>NA</u>	PO Value <u>NA</u>	
Contractor Code / Name <u>NA</u>	<u>NA</u>		
Misc. / Other Costs <u>NA</u>	Remarks <u>NA</u>		

RC-FEM-QP-1 Branch Copy - White  
RC-BEM-QP-1 Service (FEM/BEM) Copy - Yellow  
RC-WO-01 Customer Copy - Pink

PHOTO 2.6.1 Branch Copy

Form : WO Rev 2.1

**Radicare WORK ORDER** 86 3656145

---

WO No. 10002/99101/mis WO Date 10/12/15  
 Asset No. 082003117 Description FCR  
 Hospital HOSHAS Location XRAY

**Request From**  
 Requestor Diman Designation Jr. Rm. 7  
 Phone 1200 Date 10/12/15 Time 1000 (am/pm)

**Request Details**  
Masin scan bermasalah.

---

*Below This Line For Radicare Use Only*

**WO Receipt and Classification**  
 Received By SAMI Date 10/12/15 Time 1000 (am/pm)  
 WO Cat. 45 WO Type 80 WG Code AD  
 Target Date 15/12/15 Priority N2 Est Hrs. 1:00 Parts Yes/No  
 Cancelled By NA Reason NA

**Assessment Details**  
 Responded By TAMBAI Date 10/12/15 Time 10:15 (am/pm)  
 Root Cause error 10460  
 Verified By ABD RAZAK BIN ALIAS Date 10/12/15 Time 10:15 (am/pm)  
 Signature HOSHAS, TEMERLOH Designation

**Tasks / Employee**

Task Code	Task	Start Date/Time	End Date/Time
<u>101</u>	<u>Repair</u>	<u>10/12/2015 11:00 am/pm</u>	<u>11/12/2015 17:00 am/pm</u>

Employee Code	Prep. Hrs	Rep. Hrs	Ver. Hrs
<u>064005</u>	<u>0:10</u>	<u>1:00</u>	<u>0:30</u>
<u>095242</u>	<u>0:00</u>	<u>2:00</u>	<u>0:00</u>
<u>052797</u>	<u>0:00</u>	<u>1:00</u>	<u>0:00</u>

**Spare Parts**

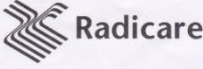
Part Code	Description	QTY
<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>
<u>NA</u>	<u>NA</u>	<u>NA</u>

**Completion**  
 Action Taken 10 jamakut dgn mesin. Auto shutdown checking, Relusikan IP yg di standby. Test kembali slot - unit yg terpasang on  
 QC PPM NA QC Uptime 0009 DVO Name NA  
 Asset Required But Not Available Yes/No DVO Signature SITI AZWANI BT FABELILAH  
 Handover Date 12/12/15 Time 4:15 (am/pm)  
 Accepted By ABD RAZAK BIN ALIAS Signature [Signature] Designation Engineer  
JURU X-RAY (D) UB2  
HOSHAS, TEMERLOH

**Cost Details**  
 Resource Type In-house PO No. NA PO Value NA  
 Contractor Code / Name NA / NA  
 Misc. / Other Costs NA Remarks NA

RC-FEM-QP-1 Branch Copy - White  
 RC-BEM-QP-1 Service (FEM/BEM) Copy - Yellow  
 RC-WO-01 Customer Copy - Pink

PHOTO 2.6.2 Service (BEMS/FEMS) Copy



**Radicare**

(Serial No.)  
Form: CPF Rev 1.6  
**COMPLAINT FORM**  
**3792559**

---

Hospital : HOSHAS

Auto No. : 082/2015/02/002618

User Location : X RAY

Name of Complainant : AIMAN

Date : 10/2/15 Time : 1000

User Department : X-Ray

Contact No. : 1200

Position : Jx RAY

Service Involved :  Facility Engineering     Clinical Waste Services     Cleansing Services

(Please ✓)                       Biomedical Engineering     Linen Services                       Others

Complaint Details: mesin scan bermasalah.                      Ref Doc No. : 365645

---

Asset No : 082003117

Work Order No : W0082199601/2015

**COMPLAINT LOGGING (By Radicare Help Desk)**

Received By : SMP1                      Date : 10/2/15                      Time : 1000

Mode Of Complaint :  MOH                       MIS

(Please ✓)                       SIHAT

Severity :  Very Critical                       Critical                       Less Critical

---

**COMPLAINT RESOLUTION (By Receiver)** (continue on separate sheet if necessary)

Complaint Status :  Valid     Not Valid    Specify reason : 1st w. order.

Action Taken : IP Saungkut dlm mesin. Auto shutdown. checking, kaluarkan IP yg tersangkut. Test skema slot. Unit tested Ok.

Root Cause Code (if any) : NA

Complaint Type : DD

Corrective Action Needed :  Yes     No    Specify reason : No

Name : Azziz / Azziz                      Signature : [Signature]                      Date : 10.2.15

(action taken by)

Time : 4:15 pm

---

**VERIFICATION**

Remarks: NA

Verified by Complainant : ABD RAZAK BIN ALIAS  
JURU X RAY (D) U32  
HOSHAS TEMERLOH

Date : 12.2.15

Time : 4:15pm

Verified by Radicare : [Signature]  
Service : MAZLAN BEND NOOR  
Act. Manager Service Centre  
Radiology (M) Sdn Bhd

Date : 08.19

Time : [Signature]

---

(Deduction Purpose Only)

**INDICATOR MAPPING (Please ✓)**

1	2	3	4	5	6	7	8	9	10	11
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**DEMERIT POINTS**

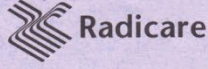
---

**VALIDATION COMMITTEE ACCEPTED AND CLOSED**                     

(Please ✓ upon confirmation at Validating Meeting)

RC-QLT-QP-3    File Copy - White    Service Copy - Pink    Complainant Copy 1 - Blue    Complainant Copy 2 - Yellow

**PHOTO 2.6.3 Complaint Form**



(Serial No.)  
Form: CPF Rev 1.6  
**COMPLAINT FORM**  
**3792559**

---

Hospital : HOSUNA S

Auto No. : 022/2015/02/100218

User Location : X RAY

Name of Complainant : AIMAN

Date : 10/2/15 Time : 1000

User Department : X-Ray

Contact No. : 1200

Position : Jx Ray

Service Involved (Please ✓)

<input checked="" type="checkbox"/> 1 Facility Engineering	<input type="checkbox"/> 3 Clinical Waste Services	<input type="checkbox"/> 5 Cleansing Services
<input checked="" type="checkbox"/> 2 Biomedical Engineering	<input type="checkbox"/> 4 Linen Services	<input type="checkbox"/> 6 Others

Complaint Details: maxim scan bermasalah Ref Doc No. : 3656145

---

**COMPLAINT LOGGING (By Radicare Help Desk)**

Received By : SMFI Date : 10/2/15 Time : 1000

Mode Of Complaint (Please ✓)

<input checked="" type="checkbox"/> 1 MOH	<input type="checkbox"/> 3 MIS
<input type="checkbox"/> 2 SIHAT	

Severity

<input type="checkbox"/> 1 Very Critical	<input type="checkbox"/> 2 Critical	<input checked="" type="checkbox"/> 3 Less Critical
--	-------------------------------------	---

---

**COMPLAINT RESOLUTION (By Receiver)** (continue on separate sheet if necessary)

Complaint Status :  Valid  Not Valid Specify reason : 1st w. order

Action Taken : IP songkut dlm mesin. auto shutdown. checking, kalibrasi IP yg tersangkut. test semua slot. Unit tested ok.

Root Cause Code (if any) : N/A

Complaint Type : N.D

Corrective Action Needed :  Yes  No Specify reason : No

Name : Aiman Aiman Signature : [Signature] Date : 10.2.15  
(action taken by) Time : 4:15 pm

---

**VERIFICATION**

Remarks: nm

Verified by Complainant : <u>ABD RAZAK BIN ALIAS</u> <u>JURU X-RAY (D) U32</u> <u>HUSHA TEMERLOH</u> Signature	Verified by Radicare : <u>MAZLAN BIN MOHD NOOR</u> Act. Manager Service Centre <u>Radicare (M) Sdn Bhd</u> Signature
Date : <u>10.2.15</u>	Date : <u>10/2/15</u>
Time : <u>4:15pm</u>	Time : <u>08:19</u>

---

(Deduction Purpose Only)

**INDICATOR MAPPING (Please ✓)**

<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10	<input type="checkbox"/> 11
---------------------------------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	----------------------------	-----------------------------	-----------------------------

**DEMERIT POINTS**

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**VALIDATION COMMITTEE ACCEPTED AND CLOSED**  
(Please ✓ upon confirmation at Validating Meeting)

RC-QLT-QP-3 File Copy - White Service Copy - Pink Complainant Copy 1 - Blue Complainant Copy 2 - Yellow

PHOTO 2.6.4 Service Copy

## 2.7 BUILDING CONDITION ASSESSMENT

### 2.7.1 CODING SYSTEM

In order to make client to be at ease and be able to understand clearly our report, we have developed coding system. In addition, we also provided the coding description in order as shown in table 1, 2 and 3 below.

#### ELEMENT CODING DESCRIPTION

Element	Code
Drainage and its cover	DRC
Apron	APR
Wall	WLL
Door	DOO
Ceiling	CLG
Landscape	LC

*Table 1 Element coding description*

### 2.7.2 DEFECT CODING DESCRIPTION


Defect	Code
Fungus / moss	FM
Stain	ST
Dusty	DS
Break / detached	BR
Flaking	FL
Dampness	DA
Decayed	DC


*Table 2 Defect coding description*

## 2.7.3 BARIS ASSESSMENT


SCALE		PRIORITY ASSESSMENT			
		E4	U3	R2	N1
CONDITION ASSESSMENT	5	5	15	10	5
	4	4	12	8	4
	3	3	9	6	3
	2	2	6	4	2
	1	1	3	2	1
<b>NO</b>	<b>MATRIX</b>	<b>SCORE</b>			
1	Plan Maintenance	1 to 4			
2	Condition Monitoring	5 to 12			
3	Serious Attention	13 to 20			
<b>OVERALL BUILDING RATING</b>					
<b>No</b>	<b>Building Rating</b>	<b>Score</b>			
1	Good	1 to 4			
2	Fair	5 to 12			
3	Dilapidated	13 to 20			
<b>CONDITION ASSESSMENT</b>					
<b>CONDITION</b>	<b>SCALE VALUE</b>	<b>DESCRIPTION ( VALUE)</b>			
1	News/As New	Minor Servicing			
2	Fair	Minor Repair			
3	Poor	Major Repair / Replacement			
4	Very Poor	Malfunction			
5	Dilapidated	Damage / Missing			
<b>PRIORITY ASSESSMENT</b>					
<b>PRIORITY</b>	<b>SCALE VALUE</b>	<b>DESCRIPTION (VALUE)</b>			
Normal	1	Functional, only cosmetic defect			
Routine	2	Minor defect, but can lead to serious defect if left unattended			
Urgent	3	Serious defect, cannot function to an acceptable standard			
Emergency	4	Element/structure not function at all; OR Risks that can lead to fatality and/or injury			

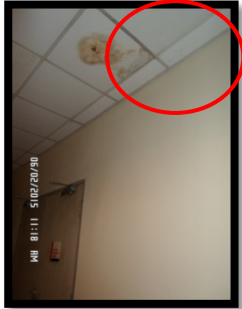
**2.8 BUILDING DEFECTS**


Defect Sheet No. LC/FM/001/ADM	Level Third floor				
	Location In-front of Administration				
	Element Landscape				
	Component Plant				
BUILDING ASSESSMENT RATING SYSTEM (BARIS)					
Condition		Priority		Matrix	Color
2		2		4	green
Defect Description					
Fungus spread at trees and causes infection					
Cause of defect					
-the lack of cleaning service for landscape -the temperature and humidity not suitable at the area					
Remedies					
1. Make sure to water the tree daily and clean the fungus at the tree 2. Rescheduled the Plan Preventive Maintenance for the hospitals landscape.					


Defect Sheet No. WD/DS/002/NICU	Level	Third floor		
	Location	Route to Neonatal Intensive Care Unit (NICU)		
	Element	Window		
	Component	Frame		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition	Priority	Matrix	Color
	2	1	2	green
	Defect Description			
	The window was dusty			
	Cause of defect			
	-the cleansing service not done their work properly.			
Remedies				
1. Clean the window using the water and detergents. 2. Make sure it be clean by daily.				





Defect Sheet No. CLG/DA/003/PHR	Level	Second Floor		
	Location	Staircase in- front of Pharmacy		
	Element	Ceiling		
	Component	Ceiling panel		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition	Priority	Matrix	Color
	2	1	2	green
	Defect Description			
	Fungus at the ceiling			
	Cause of defect			
	The temperature at the stair too			
Remedies				
<ol style="list-style-type: none"> <li>1. Find the same find the same color of paint.</li> <li>2. be sure to wear proper clothing and equipment for coating</li> <li>3. Paint with paint undercoat in advance</li> <li>4. After dried, repainting with the original paint color</li> <li>5. Clean the workplace</li> </ol>				

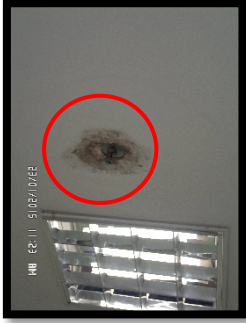
Defect Sheet No. CLG/FM/004/SD	Level Third floor			
	Location Routes to Catering and Dietetics Department			
	Element Ceiling			
	Component Ceiling panel			
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition 3	Priority 2	Matrix 6	Color yellow
	Defect Description			
	Fungus on ceiling.			
	Cause of defect			
	The ducting inside the ceiling panel is leaking.			
	Remedies			
<ol style="list-style-type: none"> <li>1. Open the ceiling panel to know what ducting is leaking.</li> <li>2. Repair the ducting</li> <li>3. change the gypsum board.</li> <li>4. Be sure studs are straight with double studs at inside corners to provide adequate nailing surface at adjoining walls.</li> <li>5. Align all electrical outlets, heating ducts, etc., so they will be flush with the wallboard surface.</li> <li>6. Applying the gypsum board at right angles to joists. To support the board's weight, use a temporary T-brace.</li> <li>7. Nail or screw boards to the joists.</li> <li>8. Clean the place.</li> </ol>				


Defect Sheet No. CLG/FM/005/FD	Level	First floor		
	Location	Route to Forensic Department		
	Element	Ceiling		
	Component	Ceiling panel		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition	Priority	Matrix	Color
	2	1	2	green
	Defect Description			
	Fungus on ceiling.			
	Cause of defect			
	The ducting inside the ceiling panel is leaking.			
Remedies				
<ol style="list-style-type: none"> <li>1. Open the ceiling panel to know what ducting is leaking.</li> <li>2. Repair the ducting</li> <li>3. Change the gypsum board.</li> <li>4. Be sure studs are straight with double studs at inside corners to provide adequate nailing surface at adjoining walls.</li> <li>5. Align all electrical outlets, heating ducts, etc., so they will be flush with the wallboard surface.</li> <li>6. Applying the gypsum board at right angles to joists. To support the board's weight, use a temporary T-brace.</li> <li>7. Nail or screw boards to the joists.</li> <li>8. Clean the place.</li> </ol>				

Defect Sheet No. DOO/BR/006/FD	Level	First floor		
	Location	Route to Forensic Department		
	Element	Door		
	Component	Door panel		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition	Priority	Matrix	Color
	3	2	6	yellow
	Defect Description			
	The door was decayed			
	Cause of defect			
	Daily use / life span			
Remedies				
<ol style="list-style-type: none"> <li>1. Identify the type of door and purchase new door.</li> <li>2. Make sure the door panel suitable with the existing frame.</li> <li>3. Install new door panel</li> <li>4. Clean the workplace.</li> </ol>				


Defect Sheet No. WLL/ST/007/SD	Level 	Second Floor		
	Location 	Routes to Catering and Dietetics Department		
	Element 	Wall		
	Component 	Paint		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
Condition 	Priority 	Matrix 	Color 	
3 	3 	9 	yellow 	
Defect Description 				
The wall was stain. 				
Cause of defect 				
The wall was exposed to hot and humid weather. 				
Remedies 				
<ol style="list-style-type: none"> <li>1. Clean the wall by water or water jet.</li> <li>2. Repaint the column with a primer that's designed to act as a vapor barrier.</li> <li>3. Apply a standard finish coat.</li> <li>4. Let the wall and siding dry out for a couple of months during warm weather before prepping and repainting the siding.</li> </ol>				



Defect Sheet No. CLG/FM/008/CF	Level Second Floor		
	Location Route to Cafe		
	Element Ceiling		
	Component Ceiling panel		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)		
Condition	Priority	Matrix	Color
3	2	6	yellow
Defect Description			
Leaking on ceiling and fungus.			
Cause of defect			
The pipe inside the ceiling was leak			
Remedies			
<ol style="list-style-type: none"> <li>1. Open the ceiling panel to know what ducting is leaking.</li> <li>2. Repair the ducting</li> <li>3. Change the gypsum board.</li> <li>4. Be sure studs are straight with double studs at inside corners to provide adequate nailing surface at adjoining walls.</li> <li>5. Align all electrical outlets, heating ducts, etc., so they will be flush with the wallboard surface.</li> <li>6. Apply the gypsum board at right angles to joists. To support the board's weight, use a temporary T-brace.</li> <li>7. Nail or screw boards to the joists.</li> <li>8. Clean the place.</li> </ol>			


Defect Sheet No. CLG/DA/009/WK11	Level Seventh Floor			
	Location Wad Kenanga 11 (near the entrance)			
	Element Ceiling			
	Component Ceiling panel			
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition 3	Priority 2	Matrix 6	Color yellow
	Defect Description			
	Dampness around sprinkler.			
	Cause of defect			
	The pipe inside the ceiling was leak			
	Remedies			
<ol style="list-style-type: none"> <li>1. Change the gypsum board.</li> <li>2. Be sure studs are straight with double studs at inside corners to provide adequate nailing surface at adjoining walls.</li> <li>3. Align all electrical outlets, heating ducts, etc., so they will be flush with the wallboard surface.</li> <li>4. Apply the gypsum board at right angles to joists. To support the board's weight, use a temporary T-brace.</li> <li>5. Nail or screw boards to the joists.</li> <li>6. Clean the place.</li> </ol>				

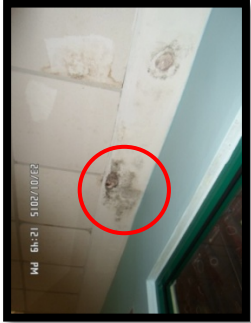
Defect Sheet No. CLG/DA/010/WK11	Level Seventh Floor			
	Location Wad Kenanga 11			
	Element Ceiling			
	Component Ceiling panel			
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition 3	Priority 2	Matrix 6	Color yellow
	Defect Description			
	Dampness on ceiling panel.			
	Cause of defect			
	Condensation (causes because when the air conditioning is on, the window is also opened).			
	Remedies			
<ol style="list-style-type: none"> <li>1. Change the gypsum board.</li> <li>2. Be sure studs are straight with double studs at inside corners to provide adequate nailing surface at adjoining walls.</li> <li>3. Align all electrical outlets, heating ducts, etc., so they will be flush with the wallboard surface.</li> <li>4. Apply the gypsum board at right angles to joists. To support the board's weight, use a temporary T-brace.</li> <li>5. Nail or screw boards to the joists.</li> <li>6. Clean the place.</li> </ol>				






Defect Sheet No. CLG/FM/011/WK11	Level Seventh Floor			
	Location Wad Kenanga 11			
	Element Ceiling			
	Component Ceiling panel			
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition 3	Priority 2	Matrix 6	Color yellow
	Defect Description			
	Fungus at the ceiling panel.			
	Cause of defect			
	There was a leaking pipe inside the ceiling.			
	Remedies			
<ol style="list-style-type: none"> <li>1. Open the ceiling panel to know what ducting is leaking.</li> <li>2. Repair the ducting</li> <li>3. Change the gypsum board.</li> <li>4. Be sure studs are straight with double studs at inside corners to provide adequate nailing surface at adjoining walls.</li> <li>5. Align all electrical outlets, heating ducts, etc., so they will be flush with the wallboard surface.</li> <li>6. Apply the gypsum board at right angles to joists. To support the board's weight, use a temporary T-brace.</li> <li>7. Nail or screw boards to the joists.</li> <li>8. Clean the place.</li> </ol>				


Defect Sheet No. WLL/ST/012/WK11	Level 	Seventh Floor		
	Location 	Wad Kenanga 11 (the middle route)		
	Element 	Wall		
	Component 	Finishes (paint)		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition 	Priority 	Matrix 	Color 
	3 	3 	9 	yellow 
	Defect Description			
	The wall was stain.			
Cause of defect				
The wall not washed by correct cleaning agents.				
Remedies				
1. Rinse the wall with the solution of 1 cup of bleach to 1 gallon of water to prevent mold and mildew from growing. 2. Let the wall dry after the cleaning works.				


Defect Sheet No. CLG/FL/013/WK10	Level	Seventh Floor		
	Location	Wad Kenanga 10		
	Element	Ceiling		
	Component	Ceiling panel		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition	Priority	Matrix	Color
	3	2	6	yellow
	Defect Description			
	The ceiling was flaking.			
	Cause of defect			
	The use of low quality paint, resulting in inadequate adhesion and flexibility.			
Remedies				
<ol style="list-style-type: none"> <li>1. Remove the flaking paint with a scraper or wire brush.</li> <li>2. Sand the area to feather the edges and prime any bare spots.</li> <li>3. Repaint the surface.</li> </ol>				

Defect Sheet No. CLG/FM/014/WK10	Level	Seventh Floor		
	Location	Wad Kenanga 10		
	Element	Ceiling		
	Component	Ceiling panel		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition	Priority	Matrix	Color
	3	2	6	yellow
	Defect Description			
	Fungus on ceiling panel.			
	Cause of defect			
	The wall not washed by correct cleaning agents.			
Remedies				
1. Clean the fungus with 1 cup of bleach and 1 gallon of water. 2. Repaint the ceiling.				


Defect Sheet No. CLG/DA/015/WK10	Level Seventh Floor			
	Location Wad Kenanga 10			
	Element Ceiling			
	Component Ceiling panel			
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition 3	Priority 2	Matrix 6	Color yellow
	Defect Description			
	There has a hole on ceiling.			
	Cause of defect			
	The ducting inside the ceiling was leaking and causes the dampness on ceiling panel.			
	Remedies			
<ol style="list-style-type: none"> <li>1. Change the gypsum board.</li> <li>2. Be sure studs are straight with double studs at inside corners to provide adequate nailing surface at adjoining walls.</li> <li>3. Align all electrical outlets, heating ducts, etc., so they will be flush with the wallboard surface.</li> <li>4. Apply the gypsum board at right angles to joists. To support the board's weight, use a temporary T-brace.</li> <li>5. Nail or screw boards to the joists.</li> <li>6. Clean the place.</li> </ol>				



Defect Sheet No. DRC/BR/016/CR	Level First floor		
	Location Chiller Room		
	Element Drainage		
	Component drain cover		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)		
Condition 3	Priority 3	Matrix 9	Color yellow
Defect Description			
The drain cover was broke.			
Cause of defect			
Exposed of hot and humid temperature.			
Remedies			
<ol style="list-style-type: none"> <li>1. Take out the broken drain cover.</li> <li>2. Measure their size.</li> <li>3. Order the drain cover form the supplier.</li> </ol>			

Defect Sheet No. DOO/DC/017/CR	Level 	Second Floor		
	Location 	Chiller Room		
	Element 	Door		
	Component 	Door panel		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition 	Priority 	Matrix 	Color 
	3 	2 	6 	yellow 
	Defect Description			
	The door was decayed			
	Cause of defect			
	Daily use			
Remedies				
<ol style="list-style-type: none"> <li>1. Identify the type of door and purchase new door.</li> <li>2. Make sure the door panel suitable with the existing frame.</li> <li>3. Install new door panel</li> <li>4. Clean the workplace.</li> </ol>				

Defect Sheet No. DRC/BR/018/AE	Level 	Second Floor		
	Location 	Route to Accident & Emergency Department		
	Element 	Drainage		
	Component 	Apron		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition 	Priority 	Matrix 	Color 
	3 	2 	6 	yellow 
	Defect Description 			
	The apron was cracked and broken.			
	Cause of defect 			
	The settlement of soil.			
Remedies 				
<ol style="list-style-type: none"> <li>1. Broke the whole apron.</li> <li>2. Make sure the soil is stable.</li> <li>3. Lay back the cement to build the apron.</li> </ol>				



Defect Sheet No. CLG/FM/019/AU	Level	Second Floor		
	Location	Route to Auditorium		
	Element	Ceiling		
	Component	Ceiling panel		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition	Priority	Matrix	Color
	3	2	6	yellow
	Defect Description			
	The ceilings have fungus.			
	Cause of defect			
	The rain water was runoff.			
Remedies				
<ol style="list-style-type: none"> <li>1. Change the gypsum board.</li> <li>2. Be sure studs are straight with double studs at inside corners to provide adequate nailing surface at adjoining walls.</li> <li>3. Align all electrical outlets, heating ducts, etc., so they will be flush with the wallboard surface.</li> <li>4. Apply the gypsum board at right angles to joists. To support the board's weight, use a temporary T-brace.</li> <li>5. Nail or screw boards to the joists.</li> <li>6. Clean the place.</li> </ol>				

Defect Sheet No. DOO/BR/020/AE	Level	Second Floor		
	Location	Doctor room at Accident and Emergency Department		
	Element	Ceiling		
	Component	Ceiling panel		
	BUILDING ASSESSMENT RATING SYSTEM (BARIS)			
	Condition	Priority	Matrix	Color
	2	2	4	yellow
Defect Description				
The door lock was broken.				
Cause of defect				
The door is locked and concession company broke the door.				
Remedies				
<ol style="list-style-type: none"> <li>1. Determine the brand or type of old door lock set (to ensure that no modifications will have to be made to the door).</li> <li>2. Measure the size of doorknob.</li> <li>3. Remove the old door lock set.</li> <li>4. Install the latch.</li> <li>5. Install the new lock set (make sure the keyed section is on the outside)</li> <li>6. Test the latch operation and the locking mechanism with the key.</li> </ol>				

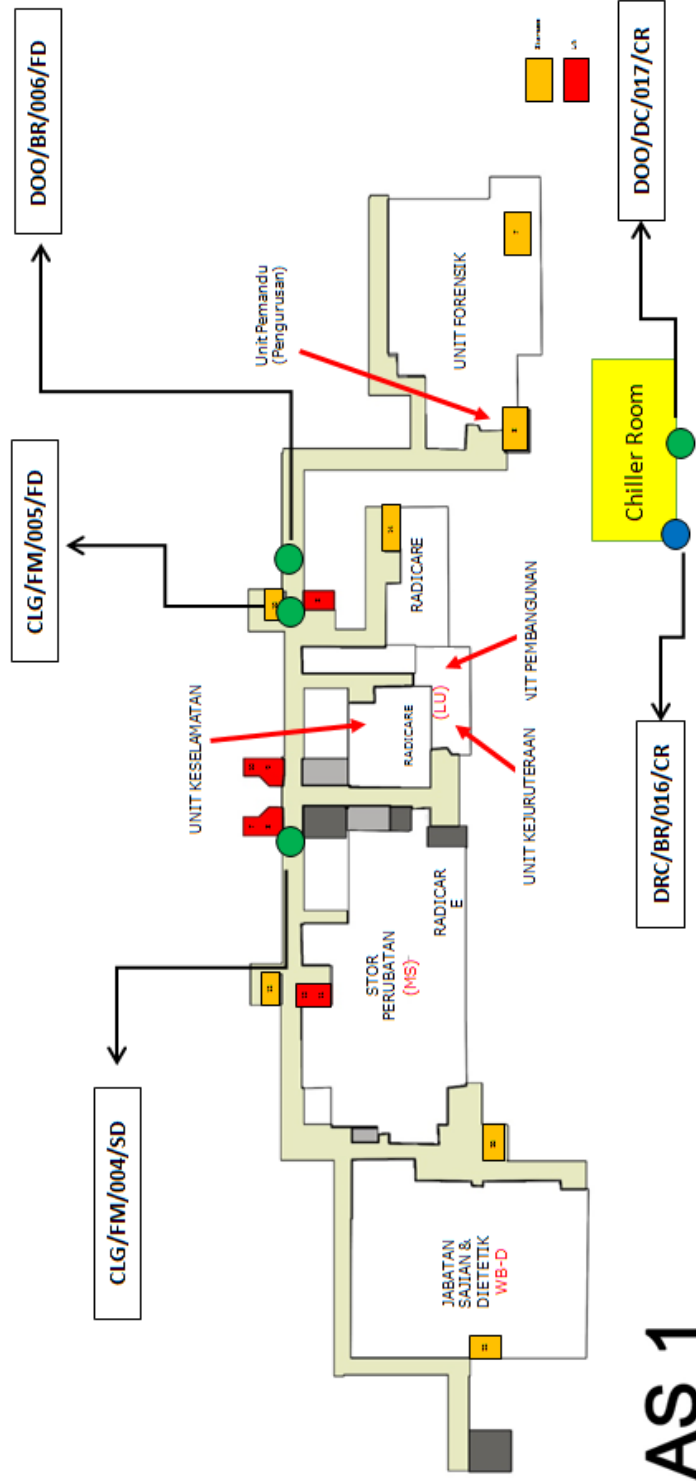
## 2.9 BUILDING ASSESSMENT RATING SYSTEM (BARIS)

BUILDING ASSESSMENT RATING SYSTEM (BARIS) FOR HOSPITAL SULTAN HAJI AHMAD SHAH, TEMERLOH					
Schedule of Building Condition (SBC)					
Sheet No.	Defects	BARIS			
		Condition Assessment [a]	Priority Assessment [b]	Matrix Analysis [c] = (a x b)	Defect Indication Plan
1	Fungus	2	2	4	LC/FM/001/ADM
2	Dusty	2	1	2	WD/DS/002/NICU
3	Fungus	2	1	2	CLG/FM/003/PHR
4	Fungus	3	2	6	CLG/FM/004/SD
5	Fungus	2	1	2	CLG/FM/005/FD
6	Decayed	3	2	6	DOO/BR/006/FD
7	Stain	3	3	9	WLL/ST/007/SD
8	Leaking on ceiling and fungus	3	2	6	CLG/FM/008/CF
9	Dampness around sprinkler	3	2	6	CLG/FM/009/WK11
10	Dampness	3	2	6	CLG/DA/010/WK11

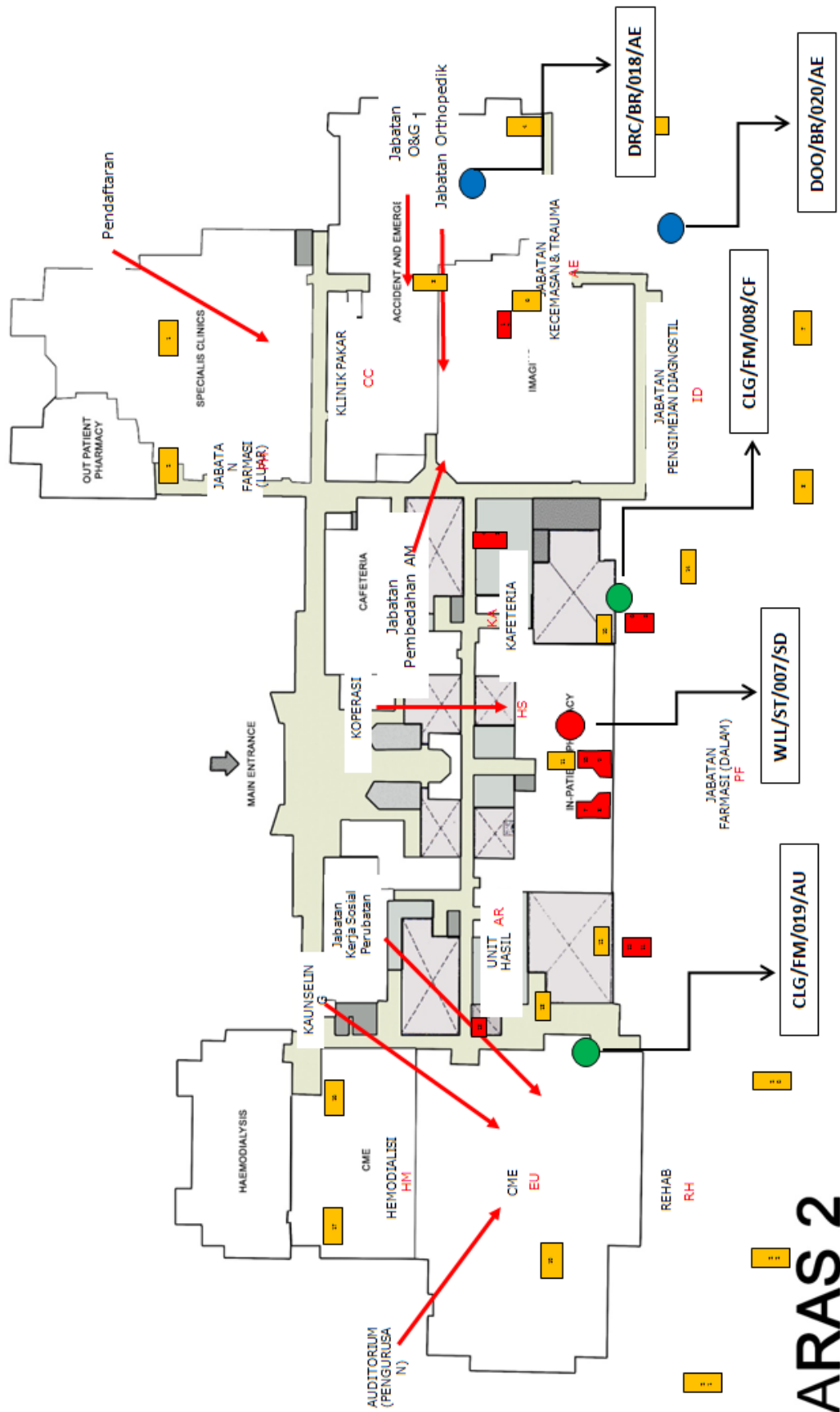
BUILDING ASSESSMENT RATING SYSTEM (BARIS) FOR HOSPITAL SULTAN HAJI AHMAD SHAH, TEMERLOH					
Schedule of Building Condition (SBC)					
Sheet No.	Defects	BARIS			
		Condition Assessment [a]	Priority Assessment [b]	Matrix Analysis [c] = (a x b)	Defect Indication Plan
11	Dampness and fungus at the ceiling panel.	3	2	6	CLG/FM/011/WK11
12	Stain	3	3	9	WLL/ST/012/WK11
13	Flaking.	3	2	6	CLG/FL/013/WK10
14	Fungus	3	2	6	CLG/FM/014/WK10
15	Hole on Ceiling	3	3	9	CLG/DA/015/WK10
16	Broke	3	3	9	DRC/BR/016/CR
17	Decayed	3	2	6	DOO/DC/017/CR
18	Broken	3	2	6	DRC/BR/018/AE
19	Fungus	3	2	6	CLG/FM/019/AU
20	Broken	2	2	4	DOO/BR/020/AE
<b>Total marks (A) = (<math>\sum</math> of c)</b>		<b>124</b>			
<b>Number of Defect (e)</b>		<b>20</b>			
<b>Total Score (d/e)</b>		<b>6.2</b>			
<b>Overall building Rating</b>		<b>FAIR</b>			

## 2.10 DEFECT INDICATION PLAN

# HOSPITAL SULTAN HAJI AHMAD SHAH (HOSHAS)



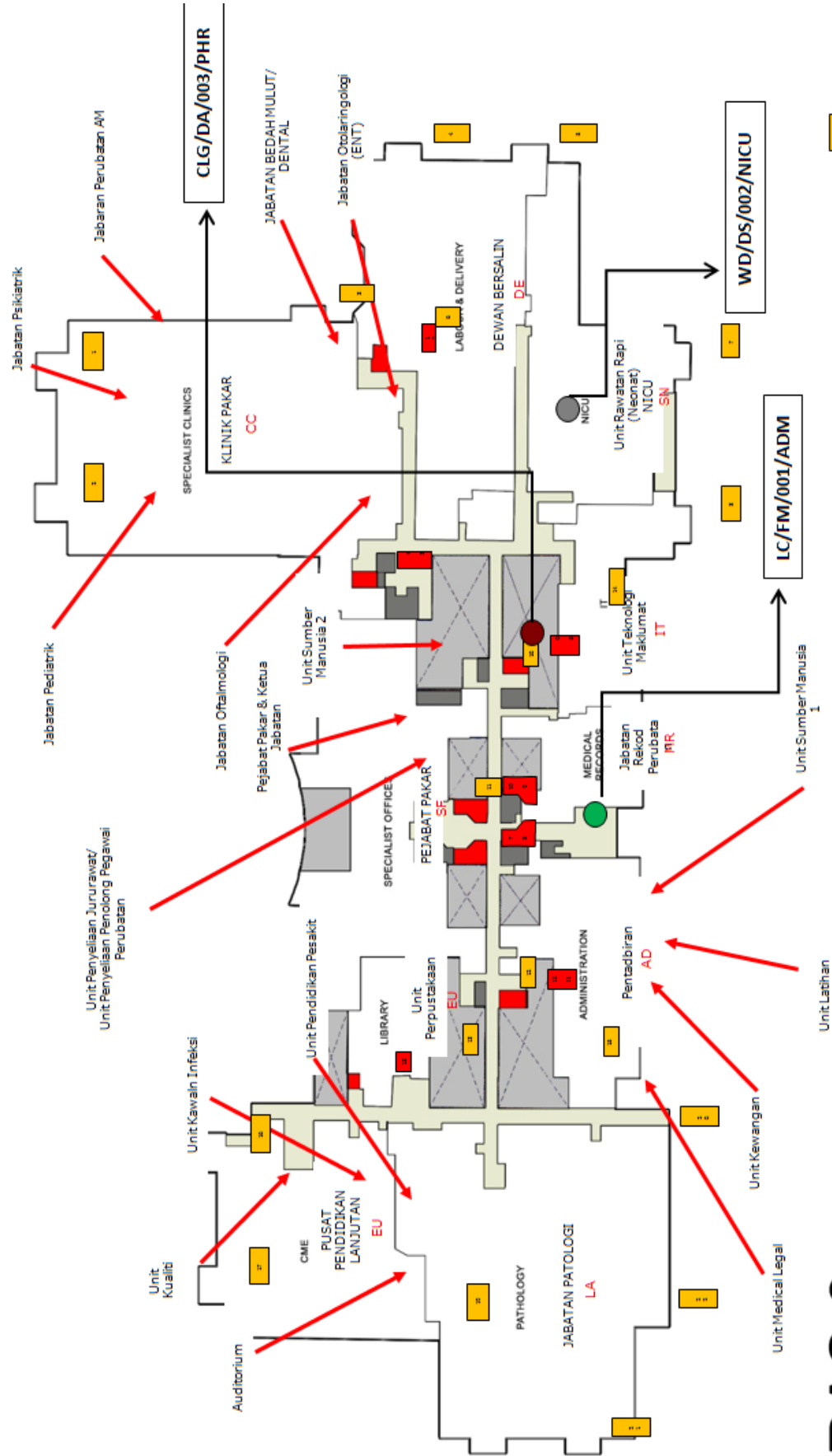
# ARAS 1



RICHWAN HIZAMI

# ARAS 2

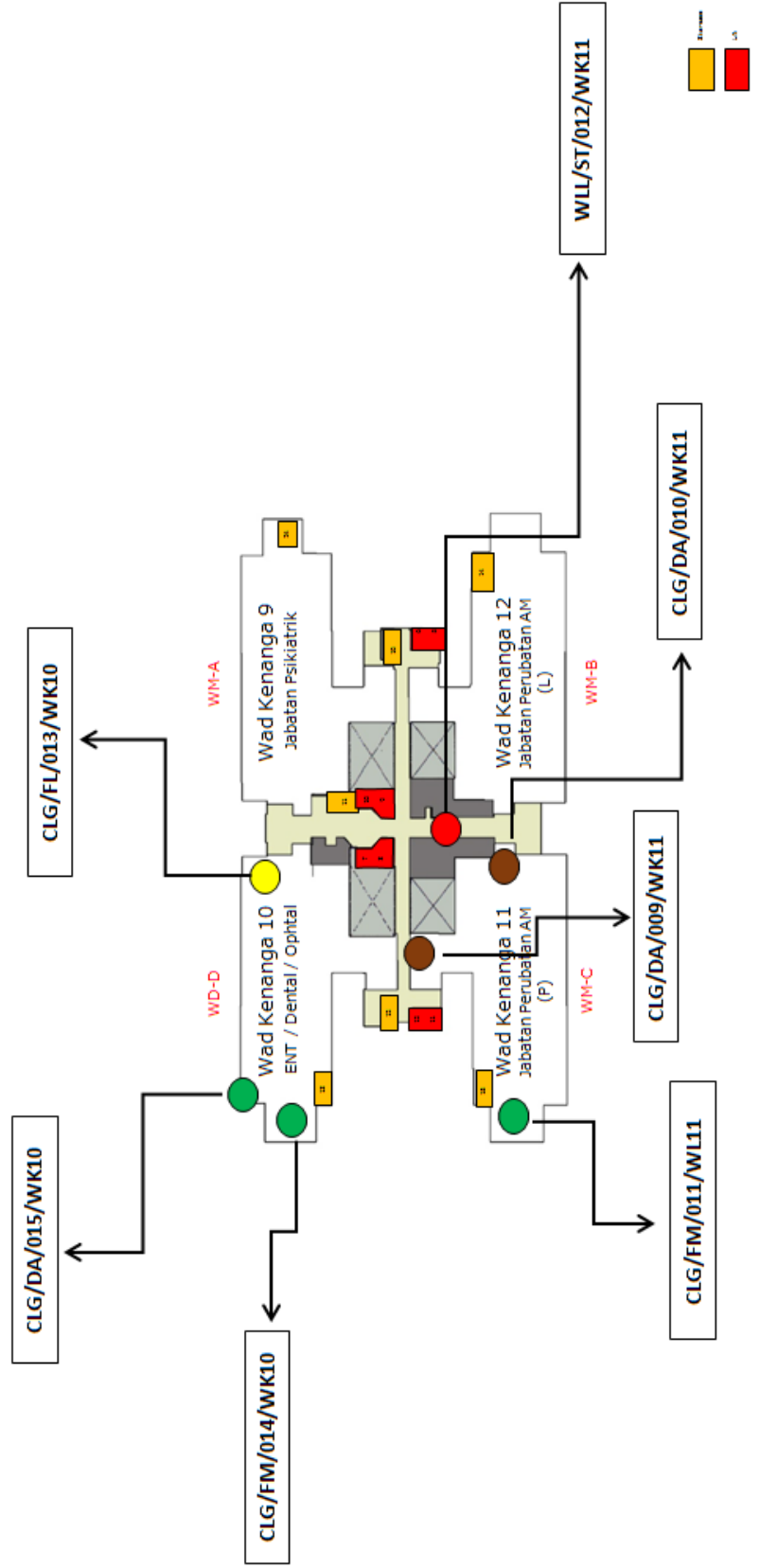
# HOSPITAL SULTAN HAJI AHMAD SHAH (HOSHAS)





# HOSPITAL SULTAN HAJI AHMAD SHAH (HoSHAS)

## ARAS 7



## 2.11 DEFECT ANALYSIS

As the inspection work in this building which is Hospital Sultan Haji Ahmad Shah, it have recorded that there were many kind of types of defects that have found. There were normal defects that have been found there. The example of defects that have been recorded is fungus, dampness, stain/ flaking and decayed. The most found defect is fungus. The causes of fungus in this hospital is condensation, the water drop from the slab, rain water runoff, the air conditioning tray full and the ducting inside the slab leaking.

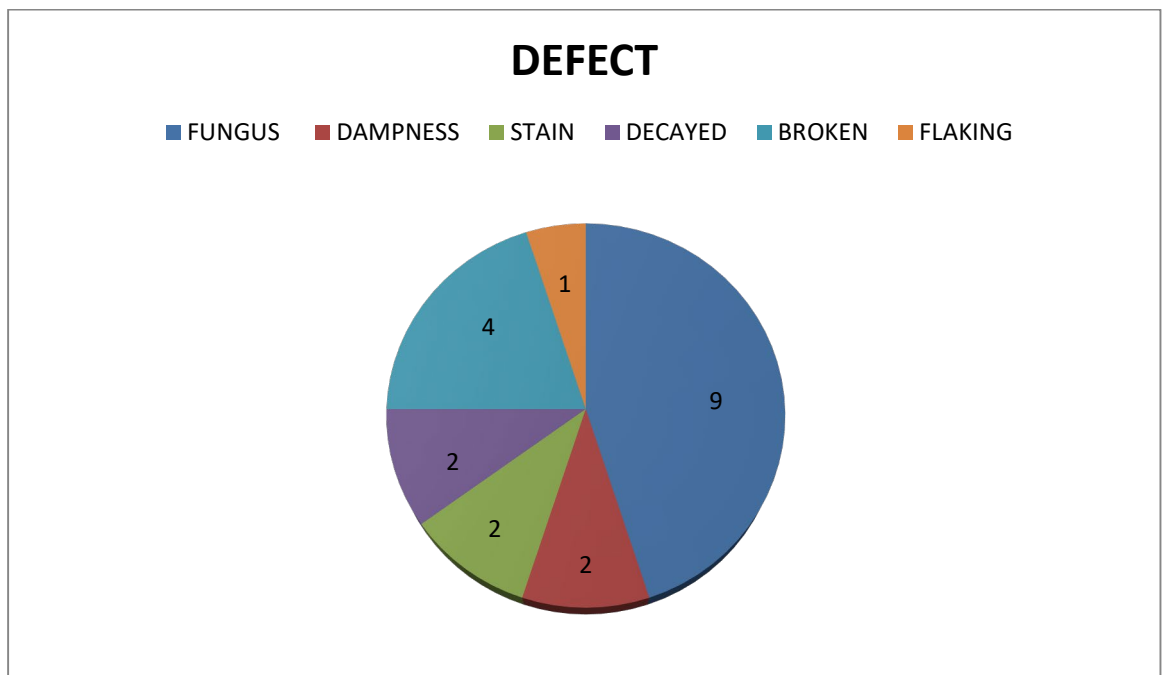


Table 7.1 The defect at Hospital Sultan Haji Ahmad Shah.

# CHAPTER 3

## PROBLEM AND RECOMMENDATION

## PROBLEM AND RECOMMENDATION

As the result for inspecting this building, Hospital Sultan Haji Ahmad Shah, Temerloh, the defect that most found is fungus and the element is ceiling. The total marks of Building Assessment Rating System for Hospital Sultan Haji Ahmad Shah is 6.2 which is fair. It is a number between the ranges of 5-12 which is FAIR in building rating. In the inspection, we have recognized and recorded five (5) types of defects total and the most occur defect type is fungus.

Generally, this building still safe to be occupied but it need time to time maintenance to make sure any possibilities of defect can be avoided. The highest matrix for defect is at the defect sheet WLL/ST/007/SD, WLL/ST/012/WK11, CLG/DA/015/WK10, and DRC/BR/016/CR which is 9 matrix rating. The most defects found is fungus on ceiling.

One of the reason of fungus on ceiling is the sanitary piping was leaking. The method for remedies work is check for signs of leaks in the pipe by looking through each link and end cap. Secondly, the leaking also happen because of the ducting of air conditioning is full. The remedies work for this situation is pump out all the water in sumps and pipe connections by using a vacuum then inspect sumps and the water flow in the exhaust pipe and pipeline blockage wash with vacuum pump. Besides that the fungus occurs because of condensation. The method that can be use is measure temperature and relative humidity levels in the affected areas. Make sure the air conditioning system operates at the level set and repair the cause of the problem. Other than that, the fungus may occur because of water drops from the slab. To repair this situation, we need to injecting Poly Urethane (PU) foam in slab that has water drops.

It is recommendable that concession company (Radicare Sdn .Bhd ) must organized schedule for maintenance or make a planned maintenance for this building to keep this building in a good condition for occupiers benefaction. They also have to monitor humidity indoors to make sure the fungus not be seperate. The hospital should improve air flow to minimized the area of fungus.

The concession company also have to do the remedies work before the defect become more serious. The hospital need to monitor the work that has done by the concession company. This is important to make sure they do the work and they do the right work for the maintenance job.

For such this case, the concession company (Radicare) should take action for servicing or repairing the defect because if that defect is being left, it may be more serious defect that may damage the building or may shorten the physical life of the building.

As identified, there are lot of defect but the act of remedies taken by the concession company to fix the problem and defect. Moreover, this building is occupied by the workers and patient at one time, so the concession company should take an action to solve or overcome the defects in this building.

It is recommended that the hospitals should monitor strictly for the work that has or have been carried out by the concession company. This to make sure any defect can be overcome before it getting worse. It is also to make sure that the concession companies do their work on time.

# CHAPTER 4

# CONCLUSION

## CONCLUSION

To conclude, there are no structural defect for the Hospital Sultan Haji Ahmad Shah, Temerloh. This building safe to the occupant. The large part of the cost should spent for walls finishes and repairing works such as for ducting and ceiling panel. As the repairing works done, it has the high oppourtunity to achieve commercial advantages.

Besides that, the maintenance has been carried out by the concession company, RadicareSdn Bhd. Their service is include Facility Enginnering Maintenance Services (FEMS), Biomedical Engineering Maintenance Services (BEMS), Clinical Waste Management Services (CWMS), Cleansing Services (CLS) and Linen and Laundry Services (LLS). The hspitals should monitor their work strictly to make sure the operation of the hospitals is going smoothly without any breakdown.

Lastly, the hospitals should take serious action for the growing fungus and dampness on ceiling. They should aim the less fungus and dampness on ceiling to enhance the beautification scenery of this building.

# APPENDIX