

**A THEORETICAL FRAMEWORK  
FOR CONSERVING CULTURAL VALUES OF  
HERITAGE BUILDINGS IN MALAYSIA  
FROM THE PERSPECTIVE OF  
FACILITIES MANAGEMENT**

**HASIF RAFIDEE BIN HASBOLLAH**

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## **Abstract**

This thesis aims to develop a Theoretical Framework for Conserving Cultural Values of Heritage Buildings in Malaysia from the perspective of Facilities Management. It proposes the establishment of Cultural Values of Heritage Buildings (CVHB) and Facilities Management (FM) in sustaining the physical condition, authenticity, and integrity of heritage buildings in Malaysia. The linkages between CVHB and FM will help to produce guidelines for conserving CVHB from the FM perspective (CVHB-FM) at the initial phase of conservation in Malaysia. The thesis adapted the Critical Realist approach in understanding the world by distinguishing the reality from factual and empirical, and recognising the social structures in the phenomenon. The research process “onion” was adapted to achieve the goal of the thesis. A Case-Study was conducted based on Malacca’s World Heritage City. A single holistic embedded approach was employed from the three levels of conservation practitioners who were strategic, tactical, and operational. The Matrix Thematic mapped the main elements of the study (CVHB, FM, conservation practitioners, and conservation documents) in a robust manner. Expert Interviews and Document Reviews were the main tools used in gathering the data. The raw qualitative data was then analysed via Content Analysis and Template Analysis. This thesis identifies the CVHB as being social, economic, political, historic, aesthetical, scientific, age, and ecological. These were associated and epistemologically constructed with FM perspectives of people, place, process, and technology. The embedded levels of respondents from the conservation practitioners have explained and elaborated on the connotation between the characteristics of CVHB and FM in developing the theoretical framework of the research. The thesis also provided insights into how the perspective of FM was associated with CVHB criteria in conserving a heritage building in Malaysia.

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## Declaration

This thesis is presented as an original contribution based on Doctorate of Philosophy research at the University of Salford, United Kingdom and has not been previously submitted to meet requirements for an award at any higher education under my name or that of any other individuals. To the best of my knowledge and belief, the thesis contains no materials previously published or written by another person except where due reference is made.

----- (Signed)

----- (Date)

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## Abbreviations

AMPM	Advanced Maintenance Precision Management
ARCADE	Awareness Raising on Cultural and Development in Europe
BAS	Building Automation System
BIM	Building Information Modelling
CAFM	Computer-Aided Facility Management
CEN	<i>Comité Européen de Normalisation</i> (French) European Committee for Standardization (English)
CHM	Conservation Heritage Management
CIDB	Construction Industry Development Board (Malaysia)
CMP	Conservation Management Plan
CS	Cultural Significance
CV	Cultural Values
CVHB	Cultural Values of Heritage Building
FGD	Focus Group Discussion
FM	Facilities Management
GCHB	Guidelines for Conservation of Heritage Building (Malaysia)
HABS	Historical Architecture Building Survey (Malaysia)
HB	Heritage Building
HE	Heritage Environment
ICT	Information and Communications Technology
ICOMOS	International Council on Monuments and Sites
IFMA	International Facility Management Association
ISOCARP	The International Society of City and Regional Planners (Europe)
KL	Kuala Lumpur
MAFM	Malaysian Association of Facility Management
MT	Matrix Thematic
MNC	Multinational Corporation
NAFAM	National Asset and Facility Management
NHA	National Heritage Act (Malaysia)
OUV	Outstanding Universal Value
OWHC	Organisation of World Heritage City
PhD	Doctor of Philosophy
PPS	The Planning Policy Statement
PV	Primary Values
PWD	Public Works Department (Malaysia)
RO	Research Objective
SPAB	Society for the Protection of Ancient Buildings
SV	Secondary Values
UiTM	University Technology MARA
UK	United Kingdom
UNESCO	United Nations Educational, Scientific, and Cultural Organisation
USM	University Science Malaysia
UTM	University Technology Malaysia
UTHM	University Tun Hussein Onn Malaysia
VBM	Value Based Management
VC	Venice Charter
WHC	World Heritage City
WHL	World Heritage List
WHO	World Heritage Organisation

# CHAPTER 1: INTRODUCTION

## 1.1 Introduction

This chapter introduces the overall focus of the research and is organised as follows:

- Background of the research
- Description of the research problem
- The research aim and objectives
- Discussion of the research scope
- Structure for the thesis.

## 1.2 Research Background

Heritage buildings are part of human creation, which produces icons for a country, provides local identity, reflects the cultural values and background, represents a source of memory, historical events, and also contributes to the tourism business industry (Feather, 2006; UNESCO, 1972 and 2003; ARCADE, 2008; Communities and Local Government, 2009; Loulanski and Loulanski, 2011; Timothy, 2007; Timothy & Boyd, 2006; Smith, 2006; Robinson, 2000; Woon and Mui, 2010).

What really is “heritage?” According to the Oxford English Dictionary (1989), heritage is defined as “*property that is or may be inherited; an inheritance*”, “*valued things such as historic buildings that have been passed down from previous generations*”, and “*relating to things of historic or cultural values that are worthy of preservation*”. As a result in the context of this study, heritage might be understood as a physical object and artefact, a piece of property that is worthy of being conserved or inherited, and which has cultural value, and can be owned and passed on from one generation to the next.

Avrami *et al.* (2000) note that the process of conserving a heritage building begins even before a building is considered as heritage. It is derived from individuals, institutions, or communities deciding that some historic building is worth preserving and conserving, as it represents something worth remembering about themselves and their past that should be passed to future generations.

Article 1.4 of the Burra Charter of ICOMOS (1999) stated that conservation “*includes all the processes of looking after a place so as to retain its cultural significance which encompasses the activities that are aimed at the safeguarding of a cultural resource so as it retains its historic value and extends its physical life*”. Thus, the emphasis of conservation is about the inheritance of the Cultural Heritage Significance of the Heritage Buildings or, in the context of the study, it is called the Cultural Values of Heritage Buildings (**CVHB**) and focuses on sustaining the physical condition of heritage buildings. Therefore, Cultural Significance is a collective term for Cultural Values.

Under Principle 4.2 of English Heritage (2008), conservation is defined as “*the process of managing change to a significant place in its setting in ways that will best sustain its heritage values, while recognising opportunities to reveal or reinforce those values for present and future generations*”. Hence, the aim of conservation is to conserve a “place” for any part of England’s historic environment that represents a sense of identity and as a resource for the benefit of present and future generations.

In the definition of conservation, the terminology of “place” is adopted by English Heritage (2008) which is referred to “*as a part of the historic environment, including under the ground or sea, that people (not least practitioners) perceive as having a distinct identity, although recognising that there is no ideal term to cover everything from a shipwreck to a landscape*”. The term “place” goes beyond physical form, it embraces the idea that places with different characteristics such as any particular geographic location, historic area or town, or a region, or a building.

In addition, the historic environment refers to all aspects of the environment resulting from the interaction between local community (people) and places through time, including all surviving physical remains of past human activity, whether visible or buried, and deliberately planted or managed flora (English Heritage, 2008). However, this research specifically focusses on a heritage building and the **CVHB**.

In English Heritage Conservation Principles (English Heritage, 2008), four cultural values are applied in conserving the historic environment of a “place” which are:-

- i) Evidential value:  
Value deriving from the potential of a place to yield new evidence about past human activity;

- ii) **Historical value:**  
Value deriving from the ways in which people from the past, events, and aspects of life can be connected through a place to the present;
- iii) **Aesthetic value:**  
Values deriving from the ways in which people draw sensory and intellectual stimulation from a place; and
- iv) **Communal value:**  
Values deriving from the meanings of a place for the people who relate to it, or for whom it figures in their collective experience or memory.

Presently, cultural values are understood to be dynamic and perceived through different lenses, but what is crucial is to accept the changeability and significant changes of values from one culture or period to another (Hall, 1997; Mason, 2006; Heras *et al.*, 2013). This can be seen when four distinctive cultural values of social, historic, aesthetical, and scientific were established by UNESCO's World Heritage Committee (2008) and later were followed by economic, political, ecological, and age to complement the conservation development process (Riganti and Nijkamp, 2005; Piper, 1948; Lowenthal, 1985; Reigl, 1982).

In England, the process of conservation of a "place" begins with understanding and defining "how", "why", and to "what extent" the **CVHB** contributes to the local identity and resources for the current and future generation (English Heritage, 2008). Four **CVHB** which are evidential, historical, aesthetic and communal value, are applied in conserving the "place". Additionally, from the 1990s, an increased focus on community participation and local community experiences tends to enhance the specific knowledge about understanding the significance of a "place" (Smith *et al.*, 2003; English Heritage, 2008).

The conservation of a "place" in England involves a distinctive policy document to be understood and applied by the local community, planning authorities, professional, and expert bodies. The Planning Policy Statement 5 (PPS 5): Planning for the Historic Environment (2010) indicates the principles which are applicable to the historic environment as a whole. It involves the process of establishing the significance of the historic environment as part of "plan-making development: HE 12.2" and as "the evidence base for future planning: HE 12.2". Furthermore, PPS 5 acknowledges "local distinctiveness: HE 3.4" and "special



significance to a particular community: HE7.3”. Therefore, the establishment of PPS 5 caters for the systematic intervention of CHM processes in conservation.

In Malaysia, conservation of heritage buildings is initiated by the government and the private sector (Harun, 2011). The establishment of the National Heritage Act 2005 (Act 645) and the National Heritage Department of Malaysia in 2006 has shown the government’s efforts to enhance the conservation of heritage buildings. The National Heritage Department will ensure requirements in the National Heritage Act 2005 will be complied with the respective authorities.

The Historic City of Malacca which is situated 92 miles from the capital of Kuala Lumpur was endorsed by the UNESCO Heritage Site on July 2008 as it represents a unique architectural, cultural townscape, and promotes cultural heritage tourism (Conservation Management Plan, 2011). Malacca is also responsible for safeguarding and conserving the heritage buildings which bear the examples of historical colonies, cultural influences, and testify to the multicultural heritage traditions in Asia.

However, abandoned and ruined heritage buildings are still evident generally, including in Malaysia. These indicate the visible symbols of failing Cultural Heritage Management (CHM) processes of conservation in retaining the heritage of a human-made architectural legacy. The abandoned and ruined heritage buildings for example, can be seen in Penang’s Macalister Road Mansion (Circa, 1920), Surrey’s Cane Hill Asylum (Circa 1882), Michigan Central Station (Circa 1913), and Japan’s Hashima/Gunkanjima Building (Circa 1930). No conservation works were carried out on these iconic physical artefacts which were rich in **CVHB**. Without a systematic CHM process, the future generations will be unable to see and appreciate the **CVHB** of these buildings.

### **1.3 Problem Statement**

Heritage buildings are conserved using a conservation process called “Value-Based Management (VBM)”. ICOMOS (1999) has recognised VBM as the dynamic process of conserving heritage sites and places by heritage stakeholders (Clark, 1999 and 2001; Kerr, 2000). The phrase “heritage stakeholders” refers to individuals or groups who have a vested interest in heritage buildings. These normally consist of heritage buildings’ owners, local communities, historians, conservation specialists and architects, heritage buildings surveyors, government, and also Non-Governmental Organisations (NGOs).

VBM emphasis is placed on conserving and protecting the significance of the heritage site and place as defined by designation criteria, government authorities or other owners,

conservation experts, and other citizens with legitimate interests in the place (Mason *et al.*, 2003). There are four stages of the VBM process which are to:

1. *Understand the significance of cultural heritage;*
2. *Develop a policy of preserving cultural heritage;*
3. *Manage in accordance with policy; and*
4. *Change in accordance with policy.*

These VBM processes use Cultural Values of Heritage Buildings (**CVHB**) to guide decisions about conserving the heritage site and place. Primary **CVHB** are employed which are social, economic, political, historic, aesthetical, scientific, age, and ecological significance (ICOMOS, 1999; UNESCO, 2008).

However, conflicts occur as value clashes and goal incompatibility among the heritage stakeholders engaging in VBM emerge (Finlayson, 2011). Furthermore, conserving **CVHB** in VBM is not only potentially a prime context for conflict; the conflict also sits at the core of any attempts to deal with Cultural Heritage Management (CHM) practice. CHM conflicts such as engagements of interest among the heritage stakeholders (for instance government and NGOs); the domination of power (power to decide); political systems; ethnic and community disputes; and selective commodification leads, to loss of cultural heritage (Perring and Linde, 2009; Rowlands and Butler, 2007; Tunbridge and Ashworth, 1996; Rowlands, 1994; Meskell, 2002).

Therefore, the purpose of this study is to develop a framework for conserving **CVHB** from a Facilities Management perspective (**FM**) in order to sustain the physical condition of a heritage building. Thus, **FM** is chosen because of its familiarity with the building care process. The framework will integrate the **FM** perspective (integration of people, place, process, and technology in conserving a heritage building) and heritage building conservation (includes mapping the eight criteria of **CVHB**), so that the two are seen as one activity, rather than processes that occur at opposite ends of a spectrum. This systematic framework may help to prevent the deterioration that leads to a magnitude of loss of **CVHB** in Malaysia.

#### **1.4 Research Aim and Objectives**

The aim of this research is to propose a theoretical framework for conserving Cultural Values of Heritage Buildings (**CVHB**) in Malaysia from the perspective of Facilities Management (**FM**). This aim will be achieved via the following objectives:

1. To appraise and synthesise Cultural Values of Heritage Buildings (**CVHB**);
2. To understand the current practice in conserving **CVHB** in Malaysia;
3. To identify how the current **FM** perspective in Malaysia influences the conservation process in order to conserve **CVHB**;
4. To develop a theoretical framework for conserving **CVHB** in Malaysia from a **FM** perspective; and
5. To validate the theoretical framework for conserving **CVHB-FM** in Malaysia.

## 1.5 Research Scope

The study focuses on conservation of Cultural Values of Heritage Buildings (**CVHB**) based on the Facilities Management (**FM**) perspective in order to sustain the physical condition of heritage buildings in Malaysia. Hence, the rationale for conducting this research arises from the shortfall in CHM and VBM practice, which results from clashes of values; incompatible goals; vested interests among the heritage stakeholders; the domination of power; political systems; ethnic and community disputes; and selective commodification. These conflicts among heritage stakeholders lead to the implications of abandonment and ruin due to delaying the process of conservation.

A theoretical framework for conserving **CVHB** from the **FM** perspective will be proposed in order to produce a guideline to conserve heritage buildings in Malaysia. An example of a heritage building will be assessed according to UNESCO's eight primary **CVHB** which are social, economic, political, historic, aesthetical, scientific, age, and ecological that will be linked with the **FM** aspect of people, place, process, and technology.

This research into conservation considers one of the **FM** core competencies which is included in the **FM** life cycle in managing the functionality of a heritage building (IFMA, 2006 and 2010; Cotts *et al.*, 2010). Moreover an **FM** approach for conservation will help to sustain and restore the building's condition and functionality (Lewis *et al.*, 2010; Douglas, 1996; Amaratunga and Baldry, 2001; Pitt and Tucker, 2008). Therefore, the proposed framework will help to achieve the objective of sustaining the physical condition of the **CVHB** using a **FM** efficient and systematic approach.

The proposed study will be conducted with three levels of conservation practitioners at the strategic, tactical, and operational levels in Malacca, the World Heritage City. Firstly, at the strategic level that is concerned with the long-range aims and direction of the organisation's functions of conservation work in Malaysia. Hence, the strategic level has responsibility for setting objectives in response to conservation work for planning and

modelling, and also for the outcome and funding. Secondly, the tactical or managerial level, which is concerned with delivering the totality of functions of the conservation work in Malaysia. This includes implementing the conservation work, routines, methods, analysis, and programming. Thirdly, at the operational level, this is concerned with the periodic and conservation maintenance work operations which take place.

In this study, the research respondents will consist of strategic postholders from the Department of Cultural Heritage, Ministry of Information Communications and Culture in Malaysia; the tactical postholders who monitor the conservation work, which are the Malacca City Council and World Heritage Organisation (WHO) of Malacca; and the operational postholders which is the Malacca Museum Corporation and local conservators who manage the *Stadhuys* also known as the Red Building which was built by the Dutch occupants (Circa 1650).

## **1.6 Structure of the Thesis**

The thesis is structured into nine chapters outlined as follows:

### **CHAPTER 1: INTRODUCTION**

This chapter presents a general introduction, introduces the background of the research, the research problem, research aim and objectives, scope of the research, and the structure of the thesis.

### **CHAPTER 2: LITERATURE REVIEW**

This chapter presents the literature review and synthesises the subject matter of the research areas being investigated. This chapter covers: Malacca as the World Heritage City (WHC) of Malaysia; the literature of conserving heritage buildings, and the multidisciplinary role of Facilities Management (**FM**). In reviewing the sources of literature, deficits of the current practice of CHM which is the VBM is identified as a shortfall in conserving a heritage building. Hence, conflicts such as value clashes, goal incompatibility, engagements of interest, and domination of power occurring among the heritage stakeholders will be discussed. Due to this, an **FM** perspective is proposed as a systematic intervention process to overcome the problems in conservation.

### **CHAPTER 3: RESEARCH METHODOLOGY**

This chapter discusses and justifies the choice of the methodology used in this research which has been adopted to bring together the research philosophy, research approach, research technique, and the method of analysis of the study. In this chapter, the Critical Realist research paradigm will act as the philosophical stance that informs the data gathering process that includes the Expert Interviews and Document Reviews. Yin's single-embedded Case Study is used and the justification for applying this strategy is explained and elaborated on. Content Analysis and Template Analysis are discussed in analysing the data of the study. The research process of the study is included in this methodology chapter.

### **CHAPTER 4: APPRASING AND SYNTHESISING THE CULTURAL VALUES OF HERITAGE BUILDINGS**

This first objective (**RO<sub>1</sub>**) appraised and synthesised the **CVHB** before mapping the conceptual framework of the study. Eight major aspects of **CVHB** are considered which are social, economic, political, historic, aesthetical, scientific, age, and ecological. These eight classifications of **CVHB** are then integrated and linked with **FM** perspectives of people, place, process, and technology.

### **CHAPTER 5: UNDERSTANDING THE CURRENT PRACTICE IN CONSERVING CULTURAL VALUES OF HERITAGE BUILDINGS IN MALAYSIA**

This chapter explains and discusses the identified research participants and sources of evidence used (Expert Interviews and Document Reviews) in understanding the current practice of conserving **CVHB** in Malaysia. It also indicates the findings and discussion for the second objective (**RO<sub>2</sub>**) for the research.

### **CHAPTER 6: IDENTIFYING HOW THE CURRENT FACILITIES MANAGEMENT PERSPECTIVE IN MALAYSIA INFLUENCES THE CONSERVATION PROCESS IN ORDER TO CONSERVE CULTURAL VALUES OF HERITAGE BUILDINGS**

This chapter discusses the keys findings for the third objective (**RO<sub>3</sub>**) of the study. It provides views from the identified respondents on how the current practice of **FM** influences

the process of conservation. The respondents also elaborate on the current **FM** practice in Malaysia.

## **CHAPTER 7: DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CULTURAL VALUES OF HERITAGE BUILDINGS IN MALAYSIA FROM AN FM PERSPECTIVE**

This chapter explains and discusses the findings for the fourth objective (**RO<sub>4</sub>**) of the research. Experts elaborated on their views in linking the concept and practice of **FM** with **CVHB** in mapping the conceptual framework of the study.

## **CHAPTER 8: VALIDATION OF THE THEORETICAL FRAMEWORK FOR CONSERVING CVHB-FM IN MALAYSIA**

In this final objective (**RO<sub>5</sub>**) of the study, validation of the theoretical framework for conserving **CVHB-FM** is conducted. The final framework is also included at the end of this chapter.

## **CHAPTER 9: CONCLUSION, RESEARCH CONTRIBUTION TO KNOWLEDGE, LIMITATIONS, AND RECOMMENDATIONS FOR FUTURE WORK**

This final chapter revisits and discusses the summary of the research, the research objectives, presents the conclusions derived from the research, highlights the contribution to knowledge, and points out the limitations of the research and suggests recommendations for future research.

### **1.7 Summary and Link**

This chapter has set out the research background and focus of the research. It has explained and distinguished the essential elements for this thesis which covers the Research Problem, Aim and Objectives, Research Scope, and also the Structure of the Thesis. The next chapter will be a Literature Review chapter which will synthesises and discusses Malacca, Malaysia – The Straits of Cultural Heritage; Conserving Heritage Building; and The Multidisciplinary Role of Facilities Management.

## CHAPTER 2: LITERATURE REVIEW

### 2.1 Introduction

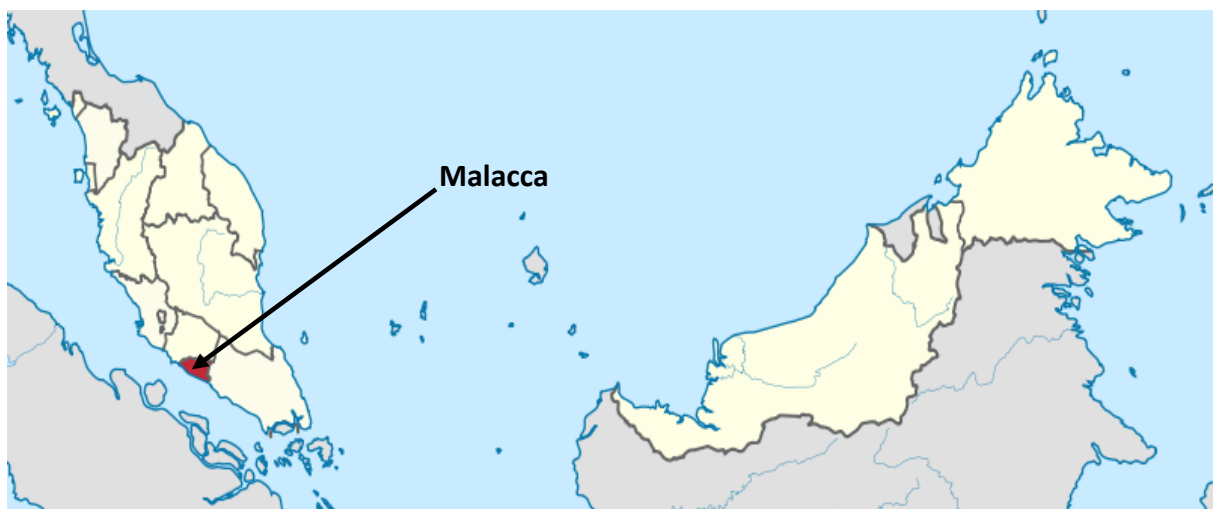
This chapter presents the literature review and synthesises the subject matter of the research areas that are being investigated. Accordingly, this chapter is structured as follows:

- Malacca, Malaysia - The Straits of Cultural Heritage;
- Conserving Heritage Buildings;
- The Multidisciplinary Role of Facilities Management; and
- Summary and Link.

### 2.2 Malacca, Malaysia – The Straits of Cultural Heritage

Geographically, Malacca, Malaysia is situated 92 miles from the megalopolis of Kuala Lumpur. It covers an area of 642 square miles and is perceived to be the third smallest state in Malaysia. The red covered area in **Figure 1** indicates the geographical location of Malacca in Malaysia.

**Figure 1:** The Geographical Location of Malacca, Malaysia.



*Source:* Adapted from Scalable Vector Graphics (2011).

Thence, the following sub-section will be discussed and elucidated: (1) The Historic and Heritage City of Malacca; (2) Malacca as a World Heritage City (WHC); and (3) The *Stadhuys* – The Most Famous Heritage Building in Malacca.

### 2.2.1 The Historic and Heritage City of Malacca

The historic city of Malacca has successfully met the requirements to uphold a World Heritage City status by UNESCO which represents a “unique architectural” and “cultural townscape” without parallel anywhere in East and South East Asia with the fusion of multicultural trading towns, in East and South East Asia.

The establishment of Malacca began in 1261 by the Malay Sultanate of Malacca as a famous trading centre and since, the Malacca River has become the core of the commercial and administrative centre. Since then, Malacca port has become a ‘must – see’ attraction, visited by tourists from around the world, it is an Islamic centre and the legacy of the pattern of administration, governance, and development of Malay Customs and Culture practised throughout the archipelago.

After the legacy of the Malay Sultanate ended, Malacca was conquered by the Portuguese, Dutch, and English. The relics such as castles, palaces, churches, buildings, and a fortress have survived physically. However, some of the buildings and the fortress were no longer visible because of constructions made of wood and destruction during the colonial era. **Figure 2** shows the surviving ‘A Famosa Fortress’ (*Porta de Santiago*) in Malacca.

**Figure 2:** The Surviving ‘A Famosa Fortress’ (*Porta de Santiago*) in Malacca.



Source: Adopted from Wikipedia Pictures (2008).



Legacies such as the Malacca Sultanate's Palace; Portuguese, Dutch, and English *Stadhuys*; Chinese *Baba* and *Nyonya*'s Heritage House; and also Indian's Gurdwara Sikh Temple have continuously been a magnet for visitors to the historic and heritage city of Malacca.

In Europe, some heritage buildings and monuments which were destroyed in the Second World War have been virtually rebuilt on the original sites. UNESCO also has accumulated huge funds to restore the sites and materials in Egypt, Cambodia, and Indonesia (Yaakob, 2013). Therefore, in Malaysia the guidelines imposed by UNESCO on Malacca as a heritage zone are needed to be implemented to maintain the City of Melaka as a World Heritage City.

### **2.2.2 Malacca as a World Heritage City**

At the 40<sup>th</sup> World Heritage Convention which was held on 16 November 2012, 190 Treaty Governments mutually agreed to safeguard 981 World Heritage sites that have been approved by UNESCO and many other sites that are being studied for properties that have Outstanding Universal Value (OUV). What is to be relevant to the Malacca state government is preparing to defend the 'trust' given and keep the number of tourists coming. For Malacca itself, tourist arrival in 2007 was at 6.02 million, and the figure rose to 13,711, 134 people in 2012 (Yaakob, 2013).

Malacca has been inscribed as having World Heritage Sites by UNESCO since July 2008 (Conservation Management Plan, 2011). Malacca is one of the remarkable examples of historic colonies that have demonstrated a succession of historical and cultural influences. It bears testimony to a living multi-cultural heritage tradition of Asia, where the many religions and cultures met and coexisted. It reflected the coming together of cultural elements from the Malay Archipelago, China, and India as well as Europe and constitutes a unique architecture, culture, and townscape (Harun *et al.*, 2010).

The interplay of UNESCO World Heritage is **criteria II, III, and IV** for Malacca as well as George Town, Penang (Malacca and Penang, 2011; Yaacob, 2013; Harun *et al.*, 2010). **Criteria II** represents exceptional examples of multicultural trading towns in East and Southeast Asia, forged from the mercantile and exchanges of Malay, Chinese, and Indian cultures and three successive European powers (Portuguese, Dutch, and English) with its imprints on the architecture, technology and monumental art.

**Criteria III** contains a unique or significant influence on cultural traditions or influences of civilisations that testify to the multi-cultural heritage of Asia and Europe. This multi-cultural tangible and intangible heritage is expressed in the great variety of religious buildings of different faiths (Church, Mosque, and Temple); ethnic quarters (Malay, Chinese, Indian, and Portuguese); languages (*Bahasa* for Malay, Tamil for Indian, Mandarin for Chinese, and Portuguese); worship and religious festivals (Christmas for Christians, Chinese New Year, Deepavali for Indians, and Idulfitri for Muslims); dances (Lion dance for Chinese, Portuguese folk dances, and *Joget Lambak* for Malays); costumes, art and music, food, and daily life activities.

**Criteria IV** indicates a mixture of influences which indicates a good example of the type of buildings, architectural style and landscape of technological development or progression and significance in human history. In particular, Malacca demonstrates the exceptional *Stadhuys*, A Famosa, Cheng Hoon Teng Temple, Sri Pooyyatha Vinayagar Moorthi Temple, Kampong Keling Mosque, *Baba* and *Nyonya*'s Shop Houses, and Malacca House at Kampong Morten.

### 2.2.3 The *Stadhuys* – The Most Famous Heritage Building in Malacca

The *Stadhuys*, also known as the Red Building among the locals, is one of the most visited and most photographed tourist attractions in Malacca (**Figure 3** shows the famous *Stadhuys* or Red Building in Malacca). Built in 1650, it is believed to be the oldest Dutch building in the East. It was originally built as the official residence for the Dutch Governors and their officers. The Red Building is a reproduction of the former *Stadhuis* (town hall) of the Frisian town of Hoorn in the Netherlands from 1420 to 1796. Hoorn's former *Stadhius* was replaced in 1796 by a building that is now known as "*het oude stadhuis*" (the old town hall), which still exists today. Hence, anyone who wishes to see what the former *Stadhius* of Hoorn looked like in the 15<sup>th</sup> to 18<sup>th</sup> centuries can visit one in Malacca, which is an excellent representation of the now extinct Frisian building.

It is interesting to note that the *Stadhuys* was not originally painted red in colour. The *Stadhuys*, like all the other Dutch administration buildings in Southeast Asia was originally painted white. After the Dutch handed over to the British in 1826, the British were the ones who, in 1911, painted the building salmon red. The actual reasons as to why this building were painted red by the British is now lost in time, but legends and theories are abundant. However, one of the theories was that the buildings were painted red to copy the colour of red

brick stone houses in England so that it would remind them of their homeland. This is because the British wanted to differentiate the houses built by them and the Dutch.

To date the construction of the *Stadhuys* and why it was painted red were not the only mysteries that are kept by this magnificent building. There are also tales of secret pathways and tunnels that were supposed to serve as strategic hidden entry and exit points in the Red Building. Although the rumours of secret passage ways and tunnels have been passed down in Malacca throughout the generations, these stories have never been proven.

As for today, the *Stadhuys* is functional as the Historical Museum and Ethnography of Malacca. It displays the memorabilia from the Malay Sultanate era, and the Portuguese and Dutch, English, and Japanese eras until the year of Malaysian Independence in 1957; historical maps; stamps; paintings and lithographs together with information on the history and cultures of Malacca's various ethnic groups. The Museum is open from 9.00 am to 6.00 p.m. every day except on Fridays when it is open from 9.00 am to 12.15 p.m. and 2.45 p.m. until 6.00 p.m. A visit to this museum is like a journey to the past, walking down the historical path of Malacca as the World Heritage City.

**Figure 3:** The Most Famous *Stadhuys* or Red Building in Malacca.



*Source:* Adopted from The Star (2007).

### **2.3 Conserving Heritage Buildings**

There are numerous concepts describing conservation and heritage buildings. This sub-chapter will uncover the terminology used in defining Heritage Buildings (HB) and conservation; the process of conservation by the Burra Charter and Value-Based Management, as well as the shortfalls of the practice.

### 2.3.1 The Terminology of Heritage Buildings and Conservation

There are many definitions provided from different sources regarding a Heritage Building (HB). An HB is defined as “*an historic building that gives us a sense of wonder and makes us appreciate culture and our heritage*” (Feilden, 2003). This definition describes an HB as an object that is unique and distinctive such that it is capable of attracting curiosity about its existence and the history behind its being. Kamal and Harun (2002) perceived these to be “*buildings built in the past which have high historical and architectural values and require continuous care and protection to preserve their aesthetic, archaeological, spiritual, social, political, and economic values*”.

In other words, an HB is expected to have an extensive life span, signifying it should be preserved for as long as possible in order to retain the outstanding aspects of its existence to the community. Furthermore, Feilden (1982) also highlighted that, an HB is different from a contemporary building because it is anticipated to last indefinitely and there are various reasons for society to preserve it for as long as possible.

The concept of conservation as it is currently recognised emerged in the late 19<sup>th</sup> century. It came to prominence when Powys (1929) of the Society for the Protection of Ancient Buildings (SPAB) attended a conference in Athens 1931 which resulted in a declaration to define and draw out a responsible philosophical approach to the repair and conservation of a major architectural monument, the Acropolis of Athens, this was called The Athens Charter (Le Corbusier, 1942).

The Athens Charter influenced the International Charter for the Conservation and Restoration of Monuments and Sites that was established in Venice in May 1964 (Taylor, 1999). The Venice Charter began with a series of definitions which have provided a debatable issue. In Article 6 (under Conservation) it stated that ‘the conservation of monument implies preserving a setting which is not out of scale. Wherever the traditional setting exists, it must be kept. No new construction, demolition, or modification which would alter the relations of mass and colour must be allowed’ (Ibid, 1999).

Furthermore, the Venice Charter or VC (1964) which was adopted by the newly formed International Council of Monuments and Sites or ICOMOS (1956, 1966) is an important modern milestone for the conservation movement. ICOMOS is an international Non-Governmental Organisation (NGO) that promotes the study of the theory, methodology, and technology of conservation applied to monuments, historic areas, and sites. It stresses the importance of setting, respect for original fabric, precise documentation of any intervention,

the significance of contributions from all periods to the HB's character, and the maintenance of an HB for a socially useful purpose.

On the other hand, The Burra Charter: The Australia ICOMOS Charter for the Conservation of Places of Cultural Significance (1981) has developed the principles detailed in the VC to suit local Australian requirements. It includes a comprehensive list of definitions of items such as place, fabric, conservation, maintenance, preservation, restoration, reconstruction, adaptation, and compatible use. It also introduces the concept of cultural significance, the "aesthetic, historic, scientific, or social value for past, present, and future generations".

Conservation is viewed as a "process to manage the changes while development, is the mechanism that delivers change" (Orbasli, 2008). Feilden (2003) has defined "*conservation as activities to prevent decay, which contains all acts to extend the life of cultural and natural heritage*". It usually focuses on three main aspect of conservation practice which are:

- (1) Prevention of decay caused by climate and human;
- (2) Management of change dynamically; and
- (3) Documentation and presentation of the building.

The practice of conservation or conserving normally contains two activities, to care and safeguard from being destroyed without careful planning (Harun, 2005). According to Hui and Leung (2004) "*conserving will lead to prolonging the life and cultural property for its utilisation for now and in the future*". Furthermore, conserving will contribute to a society for protecting its cultural resources and preserving important heritage (Insall, 1972); the significance to a nation's local identity (Forster & Kayan, 2009), and boosting the tourism industry (Johar *et. al*, 2011).

Generally, HB conservation includes the process of maintenance, preservation, restoration, reconstruction, or adaptation or combination of any mentioned process to safeguard the physical conditions of an HB with reference to its cultural significance such as social, historic, aesthetics, and scientific values.

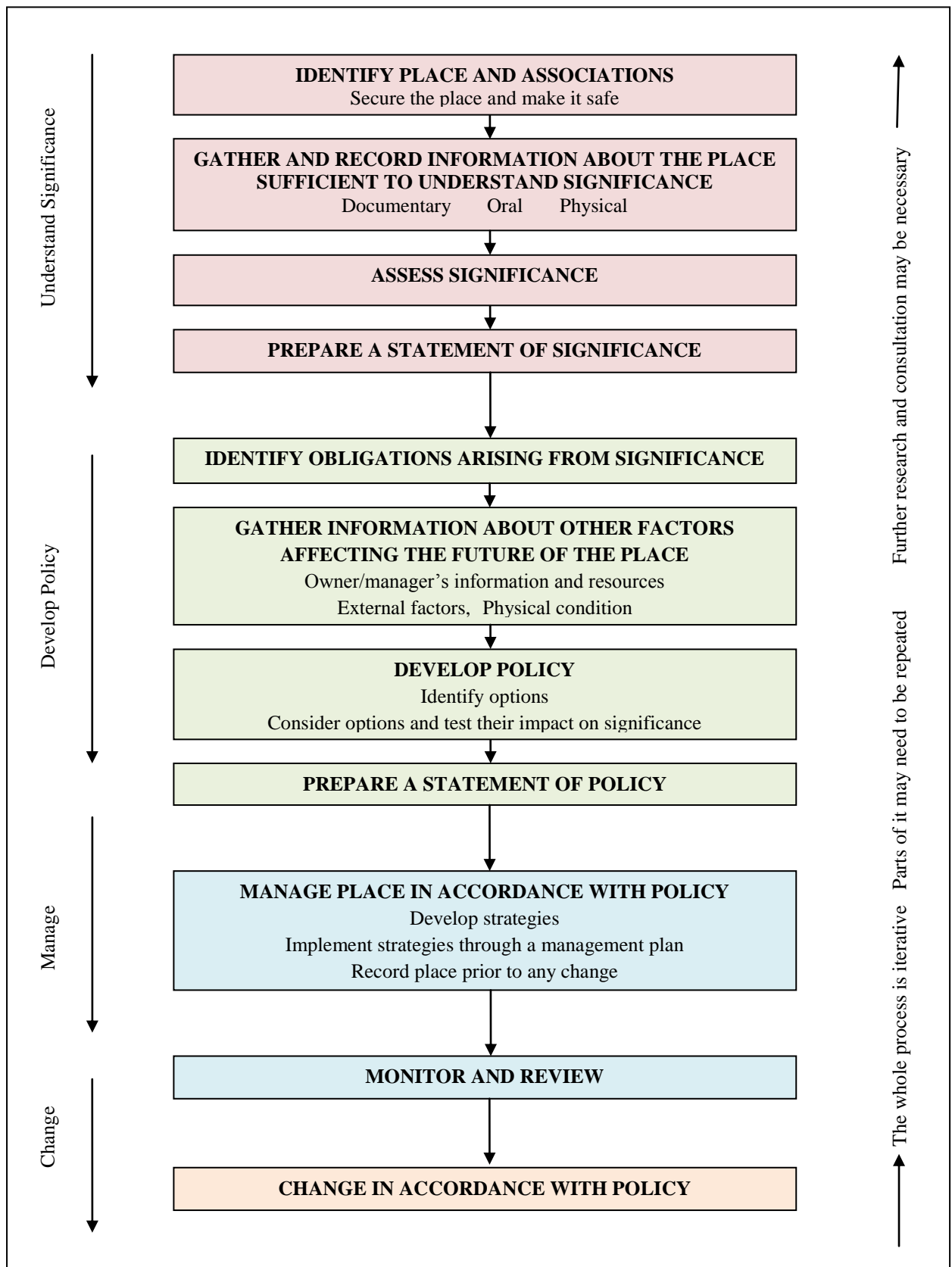
### 2.3.2 The Practice of Heritage Building Conservation

As an NGO, ICOMOS is primarily concerned with the philosophy, terminology, methodology, and techniques of HB conservation. ICOMOS is closely linked to UNESCO, particularly in its role under the World Heritage Convention 1972 as UNESCO's principal adviser on cultural matters related to World Heritage. The 5,000 members of ICOMOS include architects, town planners, demographers, archaeologists, geographers, historians, conservators, anthropologists and heritage administrators (Australia ICOMOS, 2000).

**Figure 4** indicates the overall process of conservation based on the Burra Charter. The process of conservation, according to the Burra Charter (1999) begins with:

- (1) Understanding the Cultural Significance:
  - a) Identify place and associations.
    - Secure the place and make it safe.
  - b) Gather and record information in understanding the place.
    - Documentary, oral, and physical information are used.
  - c) Assess the significance of the place.
  - d) Prepare a statement of significance of the place.
  
- (2) Developing a Policy:
  - a) Identify obligations arising from significance of the place.
  - b) Gather information about other factors affecting the future of the place.
    - Owner/manager's information and resources are needed.
    - The external factors and physical condition that affecting the place.
  - c) Develop a policy.
    - Identify any options in developing a policy.
    - Consider options and test the impact on significance of the place.
  - d) Prepare a statement of a policy.
  
- (3) Managing the place in accordance with the policy:
  - Developing strategies.
  - Implementing the strategies through a management plan.
  - Record the significance of the place prior to any changes.
  
- (4) Monitor, review, and changing in accordance with the policy.

**Figure 4:** The Process of Conservation according to the Burra Charter.



Source: Adopted from the Burra Charter (1999).

In the preliminary phase of “*Understanding the Cultural Significance*”, identifying the Cultural Significance (CS) of the “place” of heritage is vital. “Place” refers to the heritage site, land, landscape, building, or other work, groups of buildings or other works, and may include components, contents, spaces and views (The Burra Charter, 1999).

CS according to the Burra Charter (1988) means preserving the Cultural Values (CV), aesthetic, historic, scientific or social, for past, present, or future generations. Therefore, CS is a collective terminology of CV. A detailed explanation and elaboration of the CV will be discussed further in understanding the CV for the HBs in **Chapter 4** of this thesis.

“*Understanding the Cultural Significance*” is more related to understanding the significant to the conservation place or specifically conserving a heritage building. Thence, conserving a heritage building is related to the process of Value-Based Management.

Altenburg (2010) comprehended that “*the concept of VBM has implications for site managers and heritage professionals. Successful implementation requires management plans which actively involve site managers, a multidisciplinary team with a range of skills, practical, and lateral thinking, flexibility, and the on-going commitment and involvement of the local community. The Management plans should be living documents which inform management*”.

VBM is “*systematic of heritage conservation that coordinated and structured operation of a heritage site with the primary purpose of protecting the significance of the place as defined by designation criteria, government authorities or other owners, experts of various stripes and other citizens with legitimate interests in the place*” (Mason *et al.*, 2003).

Hence, the notion of this definition includes two points that need to be considered. First, it stresses the CV attributes of the place, site, or building. Second, it recognized the importance of the input and participation of heritage stakeholders in the decision-making process.

Conflicts arise among the heritage stakeholders engaged using a VBM in terms of clashes of values and incompatible goals (Finlayson, 2011). Conserving a heritage building is potentially not only prime arena for conflict; that conflict also sits at the core of any attempts to deal with Cultural Heritage Management (CHM). Conflicts such as engagements of interest among the heritage stakeholders (for instance government and NGOs); the domination of power (power to decide); political systems; ethnic and community disputes; and selective commodification, leads to loss of cultural heritage (Perring and Linde, 2009; Rowlands and Butler, 2007; Tunbridge and Ashworth, 1996; Rowlands, 1994; Meskell, 2002).



Due to this, there is a need to address this issue and a new paradigm of conservation will be proposed. Hence, a Facilities Management perspective (**FM**) will be proposed because of its familiarity with building care practice. The next sub-chapter will discuss the multidisciplinary role of **FM**.

## 2.4 The Multidisciplinary Role of Facilities Management

This sub chapter of **FM** will consist of:

- The terminology of **FM**;
- Development of **FM** in Malaysia;
- **FM** in Cultural Heritage Management; and
- The **FM** perspectives in conserving a Heritage Building.

### 2.4.1 The Terminology of Facilities Management

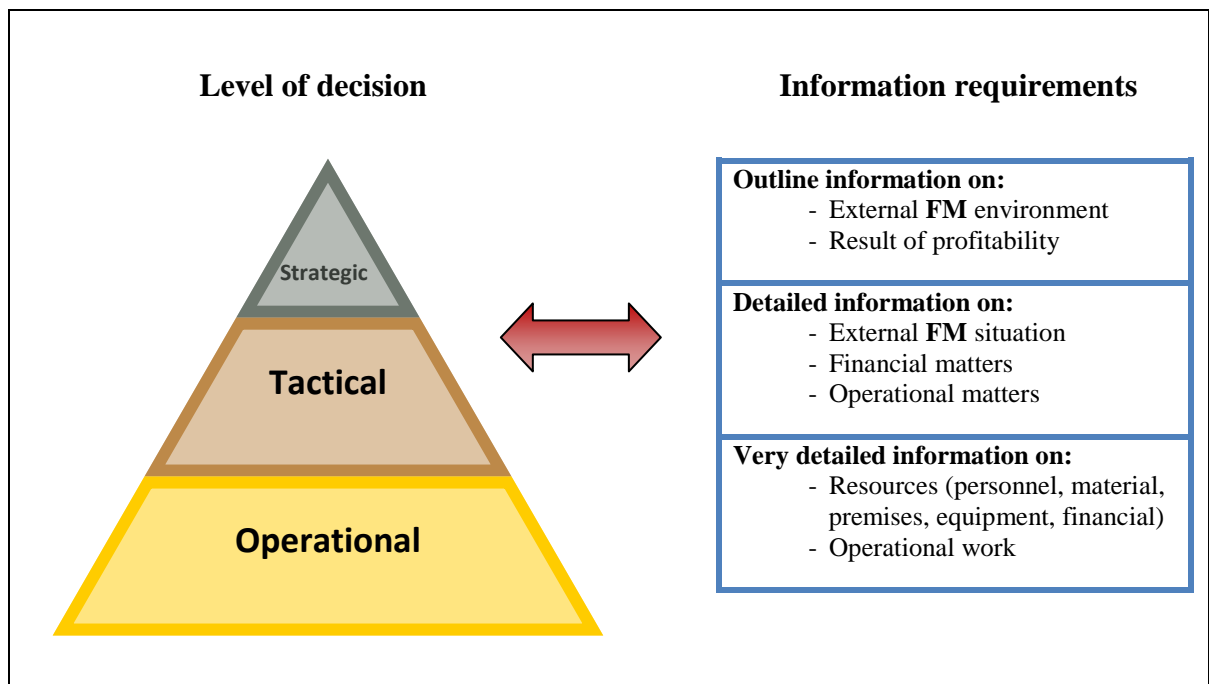
In the United States, the term, “Facility Management” is widely used, while “Facilities Management” is preferred in the United Kingdom. Therefore, the commonly accepted abbreviation is **FM**.

According to IFMA (2008) **FM** is “*a profession that encompasses multiple disciplines to ensure functionality of the built environment by integrating people, place and process, and technology*”. On the other hand, the European Committee for Standardisation (CEN) EN 15221-1 (2006) has defined **FM** as “*(the) integration of process within an organisation to maintain and develop the agreed services which support and improve the effectiveness of its primary activities*”.

Such a definition, whilst describing the scope of **FM**, does not attempt to render an explanation regarding the competencies necessitated to undertake this task. Furthermore, it is unclear what the primary activities are. As noted by Barret and Baldry (2003), facilities and their supporting services may themselves be the primary activity (such as hospitals) or may secondarily become part of the primary activity (for instance hospital cleaning as part of patient care).

The CEN depicts and defines three levels of **FM** activity which exist: strategic, tactical, and operational in the built environment sector. The European standard EN 15221-1:2000 describes a systems (process) perspective of **FM** operating at the strategic, tactical, and operational levels. Svensson (1998) has elaborated these **FM** operating level as the decision-making pyramid of an **FM** organisation as shown in **Figure 5**.

**Figure 5:** Decision-making Pyramid in an **FM** Organisation.



*Source:* Adopted from Svensson (1998).

According to Svensson (1998), the scope of **FM** includes all three levels of the decision- making pyramid in an **FM** organisation:

- The strategic level is concerned with the long-range aims and direction of the **FM** function. This includes setting objectives in response to the purpose of the **FM** function and carrying out long-term planning, taking the external requirements into consideration. The strategic level has responsibility for the result whether measured in terms of profitability and performance. The work is carried out, for instance, by planning, modelling, and simulation.
- The tactical (managerial) level, is concerned with establishing the totality and function within the **FM** organisation. This includes identifying needs and defining goals that meet these needs. The tactical work includes, for instance, controlling, analysing, programming, and budgeting, often on a yearly basis. The work includes defining routines and methods, setting standards, drawing up schedules and securing resources.
- The operational level is concerned with the day-to-day decisions in operating the facilities and the implementation of process and procedures.

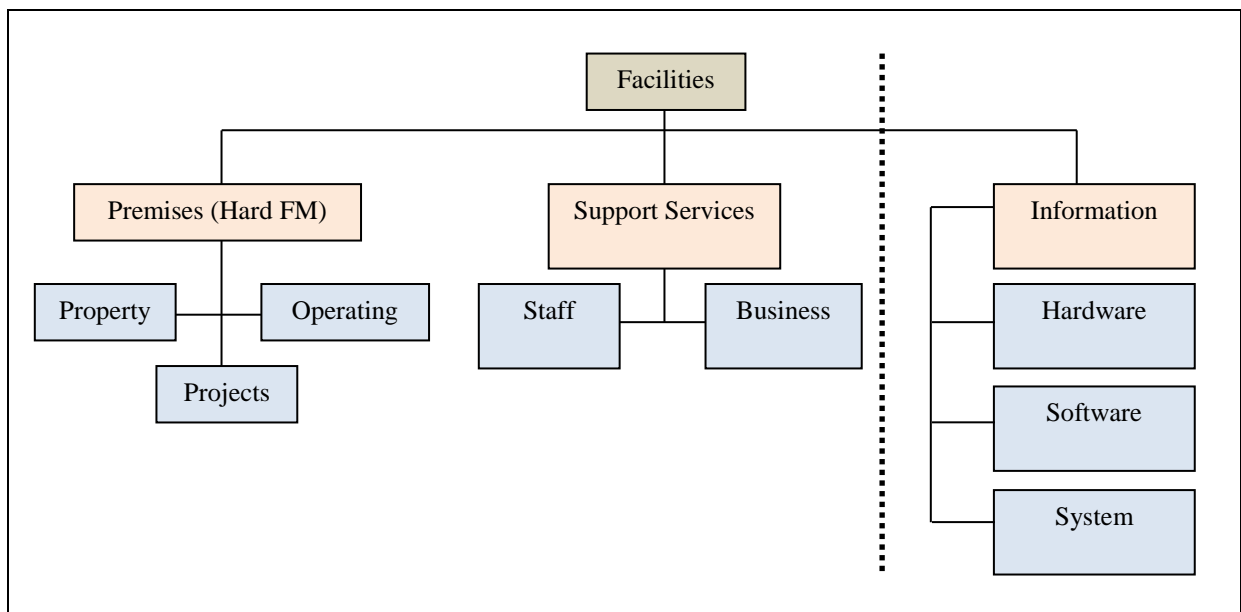
Finch (2012) notes that the operational level appears to underpin the **FM** activity, whereby evidence indicates that **FM** managers are not operational managers but are indeed project managers. They are involved in transformations, refurbishment projects, remodelling or relocations that have a discrete “start” and a discrete “end”. Therefore, the essence of **FM** primarily focuses on the organisational goals to achieve its strategic objectives.

The terminology of **FM** incorporates three key strands which are:

- Premises;
- Support services; and
- Information Technology

Williams (1996) has elaborated the terminology and scope of **FM** in an organisation as adapted in **Figure 6**.

**Figure 6:** The Scope and Terminology of **FM** in an Organisation.



*Source:* Adapted from Williams (1996).

Referring to **Figure 6**, the premises are subdivided into three activities: property, projects, and operations. Generally, property would typically involve all activities involved in procurement and disposal of property assets and leases, to produce a property portfolio that meets the developing needs of an organisation. Meanwhile, the projects function is clearly aligned with management agendas, involving strategic decision making and financial investment. However, the projects also present challenges and constraints in terms of the form of team engagement and the number and constitution of project teams changing over the

course of the project. Hence, through the support of such projects that it is possible to extend the useful life of assets, through adaptation and upgrading. The projects may include simple issues related to the movement of staff or departments and may extend to the design and construction of new buildings or even master plans. In addition, the operating role is in essence concerned with day-to-day activities including vital functions of cleaning, security, and maintenance (Finch, 2012).

Support delivery mechanisms are established to cater for and facilitate the role of support in the organisation. Furthermore, Williams (1996) goes on to suggest that “the importance of involving the information technology or IT function under the umbrella must never be underestimated”. He depicts that IT forms an integral part of any change issues related to workplace arrangements, location and facilities requirements in the **FM** process in the organisation.

Alexander (1996) defined **FM** as the process by which “an organisation ensures its buildings, systems, and services support core operations and process as well as contribute to achieve its strategic objectives in changing conditions. It focuses resources on meeting user needs to support the key role of people in organisations and strives to continuously improve quality, reduce risks and ensure value for money. It is clearly an important management and function and business service. It can also ensure that buildings and support services improve customer responsiveness and contribute to business objectives”. Amaratunga (2001) identified **FM** as “*creating an environment that is conducive to carrying out the organisation’s primary operations, taking an integrated view of the services infrastructure and using this to deliver customer satisfaction and value for money through support for enhancement of the core business*”.

Finch (2012) proposed a minor modification of **FM**. He asserted “**FM** encompasses in-house and collaborative provision of service settings for individuals, organisation and communities. **FM** enables the promotion of organisational effectiveness and individual wellbeing by leveraging the transformative potential of such settings. Also, the key to the **FM** role are advocacy in shaping organisational policy, promotion of a healthy environment, research, and professional development.

The definition by Finch (2012) served a different purpose which envisaged a European standard of **FM**. Furthermore, it nurtures a new paradigm of **FM** which facilitates “Change” Management that acknowledges the role of the **FM** within the built environment field (service settings). Hence, the equilibrium between **FM** and the service setting is intended to enhance the organisational effectiveness.

Next is the exploration of development of **FM** in Malaysia.

## 2.4.2 Development of Facilities Management in Malaysia

In Malaysia the emergence of FM started in the second half of the 1990s (Pillay, 2002). The Malaysian government has played a major role in the development of **FM** in 1996 in privatising the non-clinical support services in the government hospitals to three **FM** companies (Kamaruzzaman and Ahmad Zawawi, 2010). Furthermore, in February 2001, during the opening of the “Kuala Lumpur 21 Convention and Exposition” the Deputy Prime Minister of Malaysia in reference to the state of **FM** in Malaysia emphasised that:

*“Unless Malaysians change their mentality to become more aware of the need to provide good services and improve the upkeep of buildings, we will forever be a Third World country with First World Infrastructure”* (Prime Minister of Malaysia, 2001).

Since then, it was a starting point for the emphasis of the development of **FM**, particularly in the public sector. Hence, the practice of **FM** has been undertaken by the public and private sector in building management (Syed Mustafa and Adnan, 2008); housing management (Che-Ani *et al.*, 2010); social enterprise (Kassim and Hudson, 2006; Tobi, 2010); elderly people’s homes (Sulaiman, 2012); Multinational Corporations (MNCs) and by Malaysia’s Public Works Department (PWD) in maintenance management of government buildings, offices, schools and hospitals; health and safety; security; and operation management (Ong, 2009).

Therefore, the reality of **FM** in Malaysia is that it is in its infancy and fragmented due to limited knowledge and awareness of its importance (Noor and Pitt, 2010; Lee, 2009). However, **FM** development in Malaysia is perceived to be progressing and is in the preliminary phase compared to Hong Kong and Singapore (Moore and Finch, 2004).

Due to the awareness of the vitality of **FM** in Malaysia, the education sector has also set up and introduced the first Masters programme by the University Technology Malaysia (UTM) in 1999. This was followed by the first international conference in **FM** at Kuala Lumpur, “Where Are We Heading?” Thence, the awareness of the importance of **FM** then created the launch of the next **FM** academic programme in 2002 by University Technology MARA or UiTM Shah Alam, Selangor which then established a proposal for the development of an **FM** Masters programme by the University Tun Hussein Onn Malaysia or UTHM (Sulaiman, 2012).

The continuity of the **FM** development in the sphere of academia has machinated the development of the Malaysian Association of Facilities Managers (MAFM) by the Department of Construction and Property Management, Faculty of Technology Management, UTHM in 2004. MAFM has recognised **FM** business in organisations as follows:

- Building Services and Maintenance;
- Federal Government Services;
- State and Local Government Services;
- Education/Higher Education Institute;
- Healthcare and Pharmaceutical;
- Architectural and Landscape;
- Information Technology/Telecommunication;
- Retail and Franchise;
- Facilities Management;
- Restaurant and Catering;
- Events and Hospitality;
- Transportation, Fleet Management, and Logistics;
- Property and Estate Management;
- Chemical Industry;
- Electronic and Electrical Industrial;
- Manufacturing Industry;
- Recruitment and Personnel;
- Leisure, Resorts, and Hotels Industry;
- Professional Consultancy;
- Security; and
- Cleaning Services.

The establishment of MAFM was fundamentally to bridge the gap between the **FM** academics and the **FM** practitioners on knowledge sharing via strengthening all aspects of **FM**, spearheading **FM** related activities, as a medium for people in **FM** to interact, share information, embark on best practice approaches locally and internationally, and to constitute MAFM as a valid and legal society in Malaysia (MAFM, 2011).

Also, the first inaugural National Asset and Facility Management Convention (NAFAM) was held in August 2007 to address the current issues and future challenges in

managing national assets and facilities (NAFAM, 2007). The objective of the 1<sup>st</sup> NAFAM were:

- Serve as a means to help and facilitate the success of asset and facility management in Malaysia;
- Help to create awareness on current issues and challenges in managing government assets and;
- Improve the standards of Malaysia's practices to sustainable standards and performances by addressing the most challenging and pertinent issues from technical and strategic viewpoints.

Two years later, NAFAM 2009 was launched by Public Works Department (PWD) with collaboration of Advanced Maintenance Precision Management (APMM) and was opened by the Deputy Prime Minister of Malaysia (NAFAM 2009). The objectives of the 2<sup>nd</sup> NAFAM were:

- To explore innovative ideas for an effective engagement of Total Asset Management in the 10<sup>th</sup> Malaysian Plan of 2011-2015;
- To create a platform for sharing of experience in achieving high value on asset utilisation;
- To formulate sustainable integration of asset planning, life-cycle costing, monetisation, performance monitoring, good governance, and best practice in managing the Malaysia built environment.

From the above historical references, it can be concluded that the emergence of **FM** is progressing and at a better phase than before. Hence, public and private sectors, the higher learning institutions, and **FM** organisations of practitioners are co-operating in order to share and exercise **FM** best practice. The involvement of these **FM** entities will help to mobilise the practice and knowledge on a par with other Asian countries.

### **2.4.3 Facilities Management in Cultural Heritage Management**

Although Cultural Heritage Management (CHM) is nothing new for **FM** managers, this field can be considered to be at an earlier stage of development than other studies, such as architectural conservation. Hence, the practice of CHM has emerged during the 1990s (Rodgers and Oers, 2011). CHM practices have been progressing towards a more holistic

approach, where the cultural significance is taken into account, whenever changes need to be applied to these or other surrounding facilities (Roders, 2007).

Under the World Heritage Convention's Article 1, three types of immovable cultural heritage are distinguished: monuments, groups of buildings, and sites (UNESCO, 2008). However, debates arose over the inappropriateness of this classification when considering the nature and value of historic cities (Oers, 2006). The Operational Guidelines to the Implementation of the World Heritage Convention, in Paragraph 14 of Annex 3, has recognised those examples of categories of "historic towns and town centres". These are:

- (1) Towns no longer inhabited, meaning urban archaeological sites such as Palmyra in Syria, Angkor in Cambodia, or Tikal in Guatemala;
- (2) Inhabited historic towns, such as Djenne in Mali, Macau in China, or Baku in Azerbaijan; and
- (3) New towns of the twentieth century, such as Brasillia in Brazil, Le Havre in France, or Tel Aviv in Israel.

Nevertheless, there is no officially recognised category of World Heritage Cities (WHC) under the World Heritage Convention. Neither ICOMOS nor the Organisation of the World Heritage Cities (OWHC) has put forward any comprehensive definition. Therefore, to achieve or gain WHC or World Heritage List (WHL) status the historic properties have to acquire the Outstanding Universal Values (OUV).

OUV is the central idea of World Heritage Convention Concerning the Protection of the World's Cultural and Natural Heritage (1972) which was granted to establish an effective system of collective protection of the world's cultural and natural heritage. OUV was established by the UNESCO Expert meeting in 1976, where the concept of OUV was discussed. It was then agreed at a convention, which took place in Paris on 27<sup>th</sup> June to 1<sup>st</sup> July 1977, to produce the first definition of OUV.

This concept of OUV is defined as:

- "Outstanding" as a monument, group of buildings, or site is exceptional, superlative and remarkable;
- "Universal" as a monument, group of buildings, or site is outstanding from a global view; and
- "Value" monument, group of buildings, or site is determined based on the standards and processes by The World Heritage Convention.



The OUV encapsulates why a property is considered to be of OUV; how it satisfies the relevant criteria, the conditions of integrity and authenticity, and how it meets the requirements for protection and management in order to sustain OUV over the long term (UNESCO, 2010). OUV are arrived at as follows:

- An identification of the meanings of the site (also taking into account conflicting perceptions), establishing the site's integrity (social-functional, historical-structural, visual-aesthetic) and authenticity (artistic, historical, socio-cultural);
- The preparation of a thematic study for the identification of comparable sites in relevant cultural regions;
- The preparation of a comparative study for the identification of the relative value based on comparison with similar sites;
- A description of the category of property (monument, group of buildings, site; single or serial) and its significance (the principle theme/story of the nominated property); and
- A selection of one or more of ten World Heritage criteria.

The 1972 the World Heritage Convention has adopted the CHM in conservation (UNESCO, 1972). However, controversial debates emerged in the CHM of the WHC in Vienna, Austria, St Petersburg in Russia, Liverpool and London, UK, Macao in China as well as the Historic City of Penang in Malaysia (Rodgers and Oers, 2011).

FM's scholars such Rodgers and Hudson (2012) and Oers (2011) have discussed the CHM practice which is related to the VBM. However, as discussed earlier in **Section 2.3.2**, VBM has a deficit. The conflict issue exists among the heritage stakeholders in engaging VBM in conserving a heritage building at the preliminary process of conservation. Due to this, a FM perspective is undertaken to address the issue of contradicting conflict.

#### **2.4.4 Facilities Management Perspectives in Conserving a Heritage Building**

In developing a theoretical framework for the conservation of a heritage building, synthesis of variables are perceived to be vital. It is cognisant with two main variables which will occur in this research. First will be the Cultural Values of Heritage Buildings (CVHB), and second will be the FM perspectives. However, detailed characteristics of the CVHB will discuss in **Chapter 4** in appraising and synthesising the CVHB.

The IFMA's terminology of **FM** will be the fundamental principle used in the integration of CV and **FM** perspectives (people, place, process, and technology). In this research, the **FM** perspective of "people" is focusing on the leadership and management of the conservation organisation. It is based on seven guiding principles of **FM** provided by IFMA (2006). These are:

(1) Complementary elements (skills, knowledge, attitude):

The complementary elements of skills, knowledge and attitude are combined in the practice of **FM**. In some settings, dominant skills and knowledge are required to meet an organisation's requirements. In others, management skills and knowledge are needed to provide facilities support to the core business. Hence, the attitude of management focuses more on making certain that effective and efficient processes directly produce desired results.

(2) Shared vision:

An organisation needs to construct and communicate a shared vision of **FM**.

(3) Integration of management activity (human leadership, technical, and financial resources):

The practice of **FM** involves the almost-constant integration (a management activity) and leadership of human, technical and financial resources to meet organisational needs.

(4) Team building:

**FM** leaders often possess technical capabilities and may come from disciplines such as engineering, architecture, design or construction services. In these cases they may be familiar with both the concept of and need for teams. As important as technical competency for **FM** leaders is the ability to assemble teams of people who understand systems, focus on the critical path and take responsibility for results.

(5) Trust and respect:

A central element of leadership and management is the ability to inspire others to "do the right things" and "do them right." The integrative nature of **FM** means that the facilities manager is wholly dependent upon the work of others to achieve

key objectives such as construction, design, relocation, equipment operation, and repair. Trust and respect are the cornerstones of the facility manager's working relationship with these "doers."

(6) Accountability:

Measurement, feedback, key performance indicators and benchmarks are management tools the effective **FM** uses to foster accountability and continued improvement. Consistent measurement techniques, reports, and improvement plans also work to build trust between the **FM** and his/her customers.

(7) Ethical philosophy:

Ethical facility managers build the mission, vision, and values of their organisations on the foundation of consistent and ethical business practices.

At the most basic level, this means:

- Telling the truth;
- Treating customers and contractors with respect;
- Abiding by all laws and regulations;
- Using open and fair procurement practices;
- Treating vendors and partners fairly;
- Resolving disputes equitably; and
- Honouring commitments (IFMA, 2008).

Beside these 7 guiding principles, Cotts *et al.* (2010) has asserted that leadership and management is vital. Departments and organisations that run well and are well respected are managed by people with strong leadership characteristics.

On the other hand, Maas and Pleunis (2001) cite the relationship between "people", "process" and "place" as a central role in **FM**. They explained the three principles as follows:

- (1) "People" is about human resource and talent management, developing and sharing knowledge, as well as culture and management style;
- (2) "Process" involves the primary and secondary processes of the organisation;
- (3) "Place" indicates all aspects of housing, which include deciding on the location of the building, the function and technical flexibility. "Place" also involves the facilities in the building and the services delivered.

On the other hand, according to the CEN definition, **FM** also consists of “space and infrastructure” (planning, design, workplace, and operation and maintenance) and “people and organisation” (human resource management, information and communication technology [ICT], and hospitality).

Therefore, in this particular study, the “place” of a heritage building is one of the aspects that never been explored from an **FM** perspective. The functionality of a heritage building might be different from a typical **FM** business context. The term “place” goes beyond physical form, it involves the characteristics that can contribute to a “sense of a place”. It embraces the distinctive identity, historical events and also as tourism spots (English Heritage, 2008:2012; Jokilehto, 2006; ICOMOS, 1998).

Generally **FM** “process” refers to an integration approach (primary and support) in the organisation business services. The **FM** process is developed as part of the drive to standardise the **FM** terminology and is used to convey the sense of an integrated approach to provide all the support services of an organisation. Symonds Facilities Management (SFM) presented a process for FM implementation strategy at a Royal Institution of Chartered Surveyors Conference in 1994, which focused on (1) Clarity about purpose; (2) Identify Key Targets; (3) Establish Constraints; (4) Determine measures of success; and (5) Best practice (Fleming and Alexander, 2008). Development work is being carried out by Fleming *et al.*, (2008) to identify and map **FM** processes to provide a well-coordinated, consistent, and transparent management to all of the stakeholders acting at various points throughout the **FM** lifecycle, thus providing a “map” of the activities that need to be undertaken throughout the process. However, in this research, the concept “process” is not referring to the traditional **FM** “process”, therefore is more about a non-core function which focuses on the “operation and maintenance” in conserving a heritage building.

According to IFMA (2006) “*Operation and maintenance is the work necessary to maintain the original anticipated useful life and the original intended usage of a fixed asset. Operation and maintenance is upkeep of property and equipment. Operation and maintenance can include the following activities: periodic inspection, adjustment, lubrication, cleaning (non-janitorial), painting, replacement of parts, minor repairs, and other actions to prolong service and prevent unscheduled breakdowns*”.

Operation and maintenance are considered to be **FM** core competencies and vital phases in the **FM** life cycle (IFMA, 2006 and Cotts *et al.*, 2010). Moreover operation and maintenance in **FM** will help to conserve a physical building’s condition and functionality (Lewis *et al.*, 2010; Douglas, 1996; Amaratunga and Baldry, 2001; Pitt and Tucker, 2008).

In addition, “appropriate technology” is identified as the mechanism and medium that assists the conservation activity such as techniques, skills, and materials in conserving a heritage building. The term “appropriate technology” was coined by Schumacher (1973) as “*the simplest level of technology (efficient and effective) that has less negative impacts on the environment and society*”. “Appropriate technology” has been in used in building care in general (Steele, 1997; Sassi, 2006). In addition, “appropriate technology” that was introduced by Schumacher (1973) concerned the people, environment, and economics by using sources of energy and materials which are environmentally safe (Richardson, 1979; Ghosh, 1984; Darrow and Saxenian, 1993; Buitenhuis *et al.*, 2010).

## **2.5 Summary and Link**

This chapter represents the literature, which is based on the World Heritage City of Malacca, Malaysia. It uncovered the underlying terminology of the concept of Heritage Building and Conservation. In mapping the theoretical framework of this research, the multidisciplinary role of Facilities Management perspectives were discussed.

The next chapter will be the methodology chapter of the research.

## CHAPTER 3: RESEARCH METHODOLOGY

### 3.1 Introduction

This research methodology chapter is structured as follows:

- Research Process;
- Research Philosophy;
- Research Approach;
- Research Strategy;
- Research Technique;
- Developing the Theoretical Framework;
- Method of Analysis;
- The Coding Process;
- Validity and Reliability;
- Research Ethics; and
- Summary and Link.

### 3.2 The Research Process

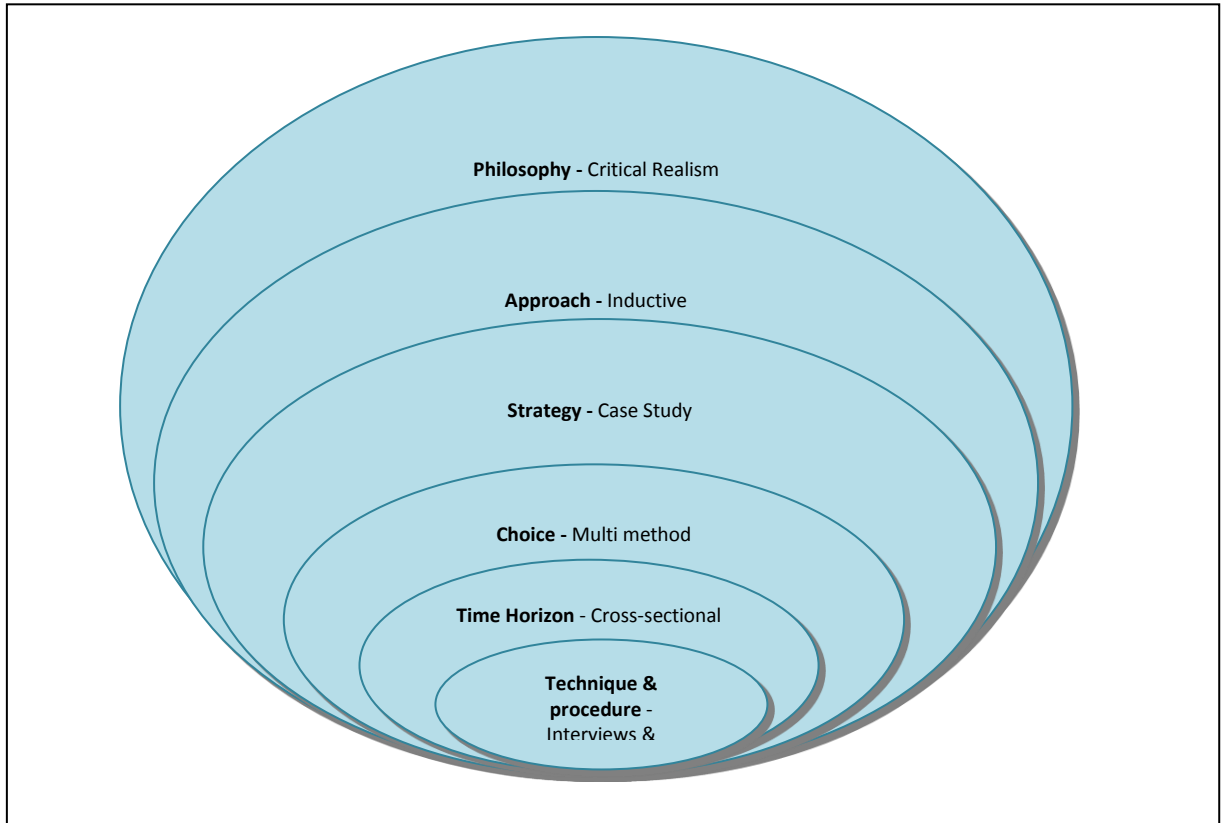
According to Sarantakos (1997), “*methodology means the science of methods that contain the standards and principles employed to guide the choice, structure, process, and use of methods, as directed by the underlying paradigm*”. In addition, Kaplan (1964) stated that “*methodology reflects the understanding of ‘means’ which demonstrate their value in practice by raising them to the level of explicit consciousness; it is no more the precondition of fruitful intellectual work than the knowledge of anatomy that is the precondition for correct walking*”.

In order to understand the components of the research methodology, this research adapted the “onion” approach introduced by Saunders *et al.* (2006) as it can assist in narrowing down and bringing together the research philosophy, the research approach, the research strategy, the research choices, time horizon, technique, and procedure (refer to **Figure 7**).

Referring to **Figure 7**, the outer layer represents the unifying research philosophy which guides and energises the research approach, strategy and technique for data collection. In addition, the research approach consists of dominant theory generation and testing methods, while the research technique comprises the data collection tools. **Figure 7** illustrates

each layer of background of the research methodology approach in detail and each of the characteristics of the “onion” will be elaborated and explained in this chapter.

**Figure 7:** Background of the Research Methodology.

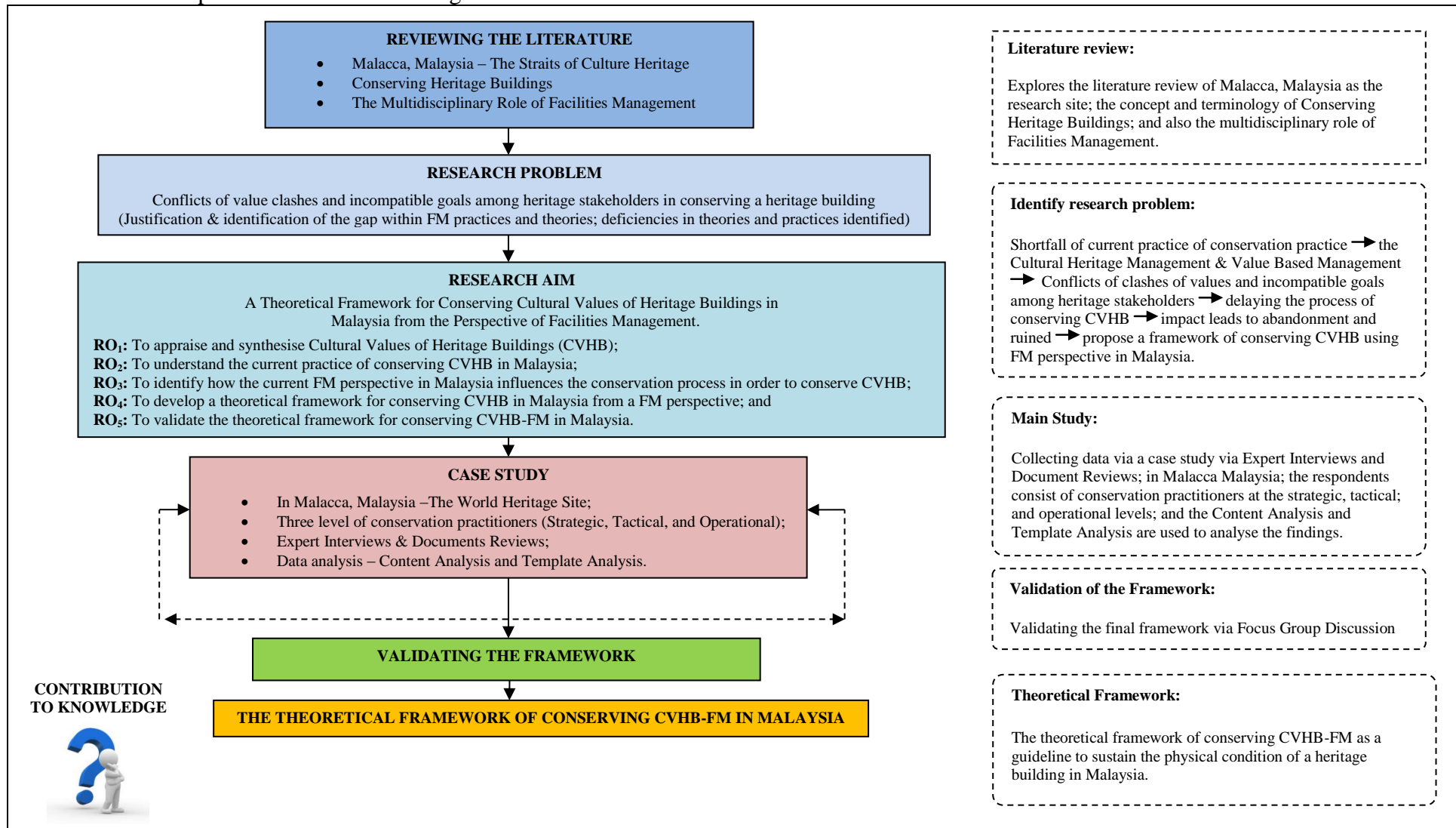


*Source:* Adapted from Saunders *et al.* (2006).

Therefore, to begin with, it is vital to know the overall process of this study. **Figure 8** indicates the overall research process in developing the theoretical framework for Conserving Cultural Values of Heritage Buildings (CVHB) in Malaysia from the perspective of Facilities Management (FM).

The research process for this study begins with exploring the literature review of Malacca in Malaysia as the research site; then it moves on to the literature of conserving heritage buildings. In reviewing the sources of literature in conserving the heritage buildings, the shortfall of current practice of CHM which is the VBM is identified as the research problem. Due to this, the FM perspective is undertaken as a systematic intervention process to overcome the problem in conserving a heritage building. Hence, the research aim and five Research Objectives (ROs) are established.

**Figure 8:** The Research Process in Developing a Theoretical Framework for Conserving Cultural Values of Heritage Buildings in Malaysia from the Perspective of Facilities Management.





In particular, this current research adopted the research strategy of a case study in Malacca, Malaysia. Three levels of conservation practitioners which comprise strategic, tactical, and operational level individuals will be interviewed for the data collection process. Furthermore, documents which are used in the conservation process will also be reviewed and analysed. Content Analysis and Template Analysis will be applied in analysing the data for this case study.

Once the initial framework is generated, the validation process will be conducted via a Focus Group Discussion in order to establish the final theoretical framework of the research. A further discussion and elaboration of the research process and the research methodology will be discussed in this chapter.

### **3.3 Research Philosophy**

This research is influenced by the Critical Realist approach which argues that “real” social structures interact with individual interaction. Realism, in contrast to the propositions of empiricism and positivism, posits that the social world does not exist separately from humans and their interpretations of it, but is constructed by rules and procedures using their knowledge, understanding and connections (Bhaskar, 1989; Smith, 1998; and Sayer, 2000).

The main concept of the Critical Realist seems to be about how things work in the world, where the world is regarded as real, and where power is able to be discovered (Sayer, 1992). In contrast, the constructivist rejects the view of human knowledge, and asserts that truth and meaning (are constructed not discovered) do not exist in some external world but are created by the subject’s (human) interaction with the world (Gray, 2004). The Critical Realist explains social reality, criticises social order and understands people from the “inside” in order to interpret the “meaning” of human actions on social actions in the real world (Fay, 1980; Crabtree and Miller, 1992; Lamnek, 1988; and Patton, 1990).

In the Critical Realist philosophy, it views understanding the world by distinguishing the reality from factual and empirical of knowledge; the structures and mechanisms in the event or phenomena. As a turning point, this research commenced to discover the literal meaning of the phenomena in understanding human interaction, focussing on the conservation practitioners in Malaysia in conserving Cultural Values of Heritage Buildings (**CVHB**) from the perspective of Facilities Management (**FM**) in Malaysia.

### 3.4 Research Approach

In order to acquire an answer to the whole complexity of a human sense of actions and interactions in the social world, a proper research approach is vital. It encompasses three elements that consist of:

- (1) Strategies for enquiry or research strategies (qualitative, quantitative and mixed methods);
- (2) Reasoning levels (deductive or inductive); and
- (3) Research methods (involves the methods of data collection, analysis, and interpretation) (Creswell, 2009; Sutrisna, 2009).

Guba and Lincoln (1989) have claimed that researchers have to distinguish between quantitative and qualitative research not on the basis of the type of evidence but on the basis of wholly different philosophical beliefs and notions. Therefore, this research will apply a qualitative strategy in gathering expert views about conserving Cultural Values of Heritage Buildings (**CVHB**) in Malaysia from the perspective of Facilities Management (**FM**).

According to Miles and Huberman (1994), *“a qualitative strategy is appropriate for exploring exotic cultures, under-studied phenomena and very complex social realities”*. For instance, this particular research will link **CVHB** with **FM** perspectives which have never been explored. This is in line with the statement by Bachman and Schutt (2003) which asserted that a qualitative strategy has the greatest appeal when there is a need to explore new issues or to determine the meaning people give to their lives and actions.

On the other hand, there are two main research methodological approaches or research reasoning levels, which are the deductive and inductive approaches. Saunders *et al.* (2006) stated that *“the deductive approach implies an inquiry into an identified problem based on testing a theory. It usually uses a body of knowledge to develop a theory and test a hypothesis”*. In contrast, an inductive approach is generally an inquiry into understanding a social or human problem from multiple perspectives (Yin, 2009) that uses the existing body of knowledge to realise the truth. The deductive or inductive approaches adopted will distinguish the type of study to be carried out. For instance, the use of a deductive approach is necessary when trying to obtain ideas in order to drive the research process.

The inductive approach is used to seek rich ideas and opinions from interaction with the empirical data in order to create a body of knowledge. This inductive approach is adopted in order to obtain richer and deeper information from the parties involved in conserving **CVHB** in Malaysia from **FM** perspectives. Moreover, applying an inductive approach to this

research enabled the data to be explored in a more natural setting where respondents within the strategic, tactical, and operational levels of conservation practitioners were free to provide their analytical responses for conserving CVHB from FM perspectives.

### 3.5 Research Strategy

There are numerous research methods and strategies such as a case study; action research; survey; experimental research; ethnography; and grounded theory (Sarantakos, 1997, 2005; Bryman and Bell, 2007; Gray, 2004; Fellows and Liu, 2007). Therefore, a suitable research strategy is critical for linking data collection analysis in acquiring results and conclusions to the determined main aim and objectives of the research. As the research is positioned within the qualitative approach, the options that are available are ethnography, survey, grounded theory, and case study.

However, **Table 1** indicates the justification for selecting the case study method as the strategy for this research.

**Table 1:** Research Strategy in Case Study Research.

Strategy	Forms of Research Question	Requires Control of Behavioural Events?	Focuses on Contemporary Events?
Experiment	How, why?	Yes	Yes
Survey	Who, what, where, how many, how much?	No	Yes
Archival analysis	Who, what, where, how many, how much?	No	Yes/No
History	How, why?	No	No
Case study	How, why?	No	Yes

*Source:* Adopted from Yin (2003 and 2009).

According to **Table 1**, there are three conditions which determine when a case study is appropriate in conducting this research. They are as follows:-

- (1) The type of research question posed;

A Case Study research strategy asks the questions “How” and “Why?”

In this research, a Case Study is adopted in order to develop the theoretical framework for conserving **CHVB** from **FM** perspectives in Malaysia. It will be based on data collection from Document Reviews and Expert Interviews from three levels of conservation practitioners at strategic, tactical, and operational levels in the state of Malacca in Malaysia, and Document Reviews. Hence, the case study strategy will combine the sources of evidence (Expert Interviews and Document Reviews) with the variables (**CVHB** and **FM**) in mapping the critical theoretical framework of this study.

In addition, the aim of developing this theoretical framework is due to deficits which have occurred in the current practice of Cultural Heritage Management (CHM) and Value-Based Management (VBM) in conservation of heritage buildings in Malaysia. The conflicts of value clashes and goal incompatibility among the heritage stakeholders engaging the CHM and VBM will be addressed in this theoretical framework for conserving **CHVB** from **FM** perspectives in Malaysia.

These statements have justified and described the question posed by “How” and “Why” they are linked and used in selecting the case study as the research strategy.

- (2) The extent of control an investigator has over actual behavioural events;

In this case study strategy, this research has no control over the conditions of the respondents in providing expert views on conserving **CHVB** in Malaysia from an **FM** perspective. The respondents are free to respond or reject the questions that are being asked. Therefore, the responses received provide a richness of data that are informative in developing the theoretical framework for conserving **CHVB** in Malaysia from **FM** perspectives.

- (3) The focus on contemporary events;

This case study strategy is focused on contemporary events of the current phenomena and issues of the conservation process in Malaysia which encompasses the variables of **CVHB** and **FM** perspectives. The shortfalls of the current process of conservation of heritage buildings have led to the development of the theoretical framework for conserving **CHVB** in Malaysia from an **FM** perspective. The sources of evidence such as literature, expert interviews and the document reviews and the variables (**CVHB** and **FM**) will be epistemologically constructed in mapping the theoretical framework of the research.

These points justify the decision to select the case study method for this research. A case study strategy is used in many situations for contributing to the knowledge of individuals, groups, organisations, and social, political, and related phenomena. It helps to retain the holistic and meaningful characteristics of real-life events such as organisational and managerial processes (Yin, 2003, 2009). Therefore, as stipulated by Yin (2003; 2009) a case study can be broadly divided into ‘Multiple’ or ‘Single’ then depending on the number of units of analysis; embedded (more than one unit of analysis) or holistic (one unit of analysis).

According to Yin (2003), *“A Single Case study approach is suitable when investigating critical, unique, representative and revelatory to a subject matter”*. Furthermore, Remenyi (2012) has reiterated that a single case study is most acceptable:

- (a) If the case study is being used to test a well formulated and accepted theory;
- (b) If the case study is unique;
- (c) If the case study is truly representative of a category of situations;
- (d) If the case study is longitudinal with several data collection periods; or
- (e) If the access to a particularly suitable case study site will preclude the researcher from approaching other sites.

Hence, this research comes under the realm of a Single-Case (embedded) design. The rationale of adopting a Single-Case is because:-

- (a) The case represents an “extreme” or “unique” case;

The state of Malacca in Malaysia was chosen because it has been included in the World Heritage List on 7<sup>th</sup> of July 2008 and was endorsed as having World Heritage Status (WHS) from UNESCO. It has been maintained and sustained the status of WHS since then.

Furthermore the state of Malacca has been adopting the Cultural Heritage Management (CHM) and Value-Based Management (VBM) that involves the strategic, tactical, and operational levels of conservation practitioners in conserving heritage buildings in Malaysia.

Therefore, these elaborations have justified that the single-case is an appropriate research strategy because it represents an “extreme” and “unique” case.

- (b) The single case is a “representative” or “typical” case;

In this research, the objective of adopting the single-case (embedded) is to capture the expert views of three levels of conservation practitioners at the strategic, tactical, and operational levels in conserving **CVHB** in Malaysia from the **FM** perspective.

This single-case (embedded) design will represent the expert perceptions of the three levels of conservation practitioners which will be informative in producing the theoretical framework in conserving **CVHB** from the **FM** perspectives in the State of Malacca, Malaysia.

- (c) The depth of coverage from a single-case;

The single-case will provide the opportunity to explore the phenomenon in detail. Though a single-case is often criticised for not generalising conclusions, others argue that the number of cases does not matter, whereas a single-case addresses its stipulated objectives (Flyvbjerg, 2006; Yin 2003).

Thence, this research explores the in-depth coverage of the current practice of conservation which includes the conservation process in Malacca; the acts, policy, guidelines, and documents used in the conservation process; and the current **FM** practice in conservation of heritage buildings in Malacca.

To summarise, this research used a single-case (embedded) approach due to the criticality of developing a theoretical framework and addressing the shortfall of the current phenomenon and issues of conserving heritage buildings in Malaysia.

In this particular single-case study, the findings will predict results in the conserving of **CVHB** using **FM** perspectives from three levels of practitioners. Overall, the evidence created from this type of study is considered reliable, but it can also be extremely time consuming and expensive to conduct (Baxter and Jack, 2008). However, this research will be conducted based on a scheduled time frame in accordance with the University of Salford’s requirements.

This research is positioned in a cross-sectional study (snapshot) of a time horizon. In the cross-sectional study, the data are gathered just once over a period of time in order to answer a research question and objectives of the study. Saunders *et al.* (2009), Easterby-Smith *et al.* (2008), and Robson (2002) have discussed time horizons in qualitative method research.

When using a case study strategy it is vital to identify the unit of analysis (Yin, 2003 and 2009). The unit of analysis is shaped by two other attributes which are “time” and “space”

(Kenny, 1996 and 2003). According to Sulaiman *et al.* (2006), “*the unit of analysis is the basic entity or object about generalisations which are to be made on analysis and for which data have been collected*”. In this research, the unit of analysis of the study are the Malacca’s conservation practitioners at strategic, tactical, and operational levels and the documents used in the conservation process of heritage buildings.

### **3.6 Research Technique**

Case study research can employ six sources for evidence gathering. They are: interviews; archival records; documentation; direct observation; participant observation; and examined physical artefacts (Yin, 2003, 2009). In this research, the selection of the research technique includes expert interviews and document reviews.

The interview technique is commonly used in the social science context which involves the researcher asking questions and receiving answers from the individual being interviewed (Sarantakos, 2005; Robson, 2002). On the other hand, a semi-structured interview can cover a wide range of subject matter; a series of questions that are in the general form of an interview schedule but have the ability to diverge from the sequence of questions should the opportunity arise (Bryman & Bell, 2007). Moreover, using the semi-structured interview is considered to be advantageous because it can be modified based upon the interviewer’s perception of what seems most appropriate (Sulaiman, 2012).

For the purpose of this research, an interview guide with semi-structured questions will be used in gathering the data from the three levels of conservation practitioners in the state of Malacca in Malaysia (refer to **Appendix C**).

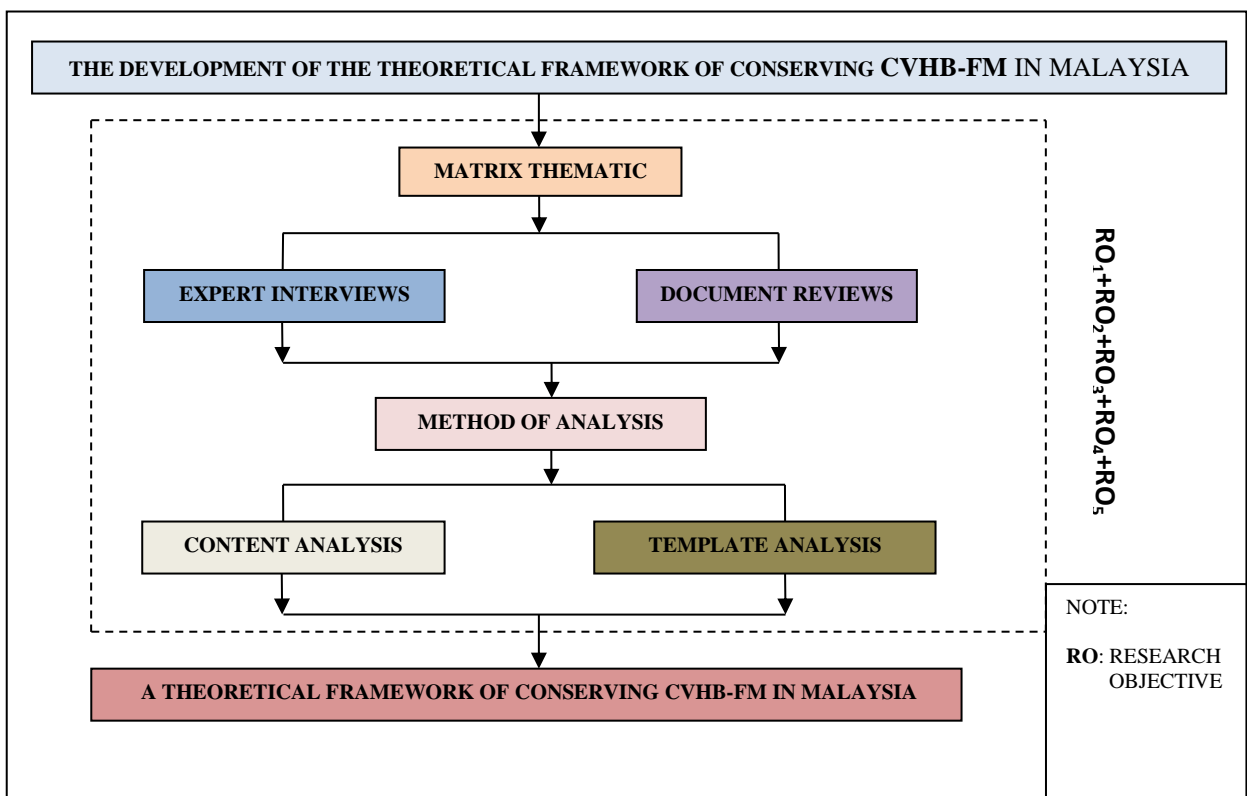
In this research, purposive sampling will be used for the respondents who are involved in the process of conservation of heritage buildings at the strategic, tactical, and operational levels. According to Devers & Frankel (2000), “*purposive sampling strategy is designed to enhance understandings of selected individuals or groups experience(s) or for developing theories and concepts. Researchers seek to accomplish this goal by selecting information rich cases, that is individuals, groups, organisations, or behaviours that provide the greatest insight into the research question*”. Furthermore, purposive sampling is a form of non-probability sampling in which decisions concerning the individuals to be included in the sample are taken by the researcher based upon a variety of criteria which may include special knowledge of the research issue, or the capacity and willingness to participate in the research (Oliver and Jupp, 2006).

Polkinghorne (2005) stated that a qualitative method is best used to investigate the human experience. Nevertheless, the quantitative ways of doing research only suit a situation where the sample size is very large and can later be generalised to a large population, while qualitative research focuses on particular subject in detail (Myers, 2009: 9). This research does not involve a large sample size but is focused on several respondents who are purposively responsible for the conservation process in the state of Malacca. A total number of eight respondents will be interviewed at these three levels of conservation practitioners. The displays for these respondents are further shown in **Table 2** in **Section 3.7** of the four displays of the research elements.

### 3.7 The Analysis Flow of the Research

The development of the theoretical framework of conserving **CVHB-FM** in Malaysia will be based on the discussion and triangulation of the findings from the literature review as well as the results of the expert interviews and document reviews. However, before mapping the development framework of this research, it is vital to understand the analysis flow of the research. **Figure 9** indicates the analysis flow of this research.

**Figure 9:** The Analysis Flow of the Research





According to **Figure 9**, in developing the theoretical framework of the study, Miles and Huberman's (1994) Matrix Thematic is used to manifest the two qualitative variables which are **CVHB** and **FM** perspective; the respondents from the strategic, tactical, and operational level; as well as the documents used in the conservation process in Malacca, Malaysia. Matrix Thematic will be applied to assist the study to achieve the objectives of this particular research. **Table 2** shows the four displays of the research elements.

**Table 2:** The Four Displays of the Research Elements.

<ul style="list-style-type: none"> <li>• Respondents from the:           <ul style="list-style-type: none"> <li>Strategic Level - Respondent 1 or <b>R<sub>1</sub></b>: The Deputy Commissioner of the Cultural Heritage Department of Malaysia;</li> <li>- Respondent 2 or <b>R<sub>2</sub></b>: The Director of Registration and Enforcement, Cultural Heritage Department of Malaysia;</li> <li>Tactical Level - Respondent 3 or <b>R<sub>3</sub></b>: The Director of World Heritage Organisation of Malacca;</li> <li>- Respondent 4 or <b>R<sub>4</sub></b>: The Conservation Architect of the Malacca City Council;</li> <li>Operational Level - Respondent 5 or <b>R<sub>5</sub></b>: The Curator / Conservator I for the Malacca Museum Corporation;</li> <li>- Respondent 6 or <b>R<sub>6</sub></b>: The Curator / Conservator II for the Malacca Museum Corporation;</li> <li>- Respondent 7 or <b>R<sub>7</sub></b>: The Curator Assistant for Malacca Museum Corporation; and</li> <li>- Respondent 8 or <b>R<sub>8</sub></b>: The Contractor/ Conservator appointed by the Cultural Heritage Department of Heritage Department of Malaysia.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Cultural Values of Heritage Buildings (<b>CVHB</b>) in Malaysia; which are:           <ul style="list-style-type: none"> <li>- <b>SOCIAL - CVHB<sub>1</sub></b>;</li> <li>- <b>ECONOMIC - CVHB<sub>2</sub></b>;</li> <li>- <b>POLITICAL - CVHB<sub>3</sub></b>;</li> <li>- <b>HISTORIC - CVHB<sub>4</sub></b>;</li> </ul> </li> </ul>

**Table 2 (continued):** The Four Displays of the Research Elements.

<ul style="list-style-type: none"><li>• Cultural Values of Heritage Buildings (<b>CVHB</b>) in Malaysia; which are:<ul style="list-style-type: none"><li>- <b>AESTHETICAL - CVHB<sub>5</sub></b>;</li><li>- <b>SCIENTIFIC - CVHB<sub>6</sub></b>;</li><li>- <b>AGE - CVHB<sub>7</sub></b>; and</li><li>- <b>ECOLOGICAL - CVHB<sub>8</sub></b>.</li></ul></li></ul>
<ul style="list-style-type: none"><li>• Facilities Management (<b>FM</b>) perspective which are:<ul style="list-style-type: none"><li>- <b>PEOPLE - FM<sub>1</sub></b>;</li><li>- <b>PLACE - FM<sub>2</sub></b>;</li><li>- <b>PROCESS - FM<sub>3</sub></b>; and</li><li>- <b>TECHNOLOGY - FM<sub>4</sub></b>.</li></ul></li></ul>
<ul style="list-style-type: none"><li>• Documents used in conserving <b>CVHB</b> in Malaysia are:<ul style="list-style-type: none"><li>- National Heritage Act of Malaysia or <b>NHA - D<sub>1</sub></b>;</li><li>- Outstanding Universal Value or <b>OUV - D<sub>2</sub></b>;</li><li>- Guidelines for Conservation of Heritage Buildings in Malaysia or <b>GCHB - D<sub>3</sub></b>; and</li><li>- Conservation Management Plan of Malacca or <b>CMP - D<sub>4</sub></b>.</li></ul></li></ul>

**Table 2** indicates the four displays of the research elements which will be used in this study. It consists of the respondents (**R**) from the strategic, tactical, and operational level; eight criteria of the Cultural Values of Heritage Buildings (**CVHB**); the Facilities Management perspective (**FM**) and also four documents (**D**) in conserving **CVHB** in Malaysia.

These four displays of the research elements have been analysed using Matrix Thematic to generalise and realise the aim and objectives of the research. On the other hand Matrix Thematic is used to develop the framework of the research.

**Table 3** indicates the Matrix Thematic displays for the research elements in developing the theoretical framework of **CVHB** from the perspective of **FM** in Malaysia.

**Table 3:** Matrix Thematic for Developing a Theoretical Framework of **CVHB** in Malaysia from the perspective of **FM**.

<p><u>Expert Interviews</u></p> <p>(1) Eight respondents (R) from the strategic, tactical, and operational level:</p> <p><b>R<sub>1</sub></b> and <b>R<sub>2</sub></b> - Strategic Level;  <b>R<sub>3</sub></b> and <b>R<sub>4</sub></b> - Tactical Level; and  <b>R<sub>5</sub></b>; <b>R<sub>6</sub></b>; <b>R<sub>7</sub></b>; and <b>R<sub>8</sub></b> - Operational Level.</p> <p>(2) <b>CVHB<sub>1</sub></b> + <b>CVHB<sub>2</sub></b> + <b>CVHB<sub>3</sub></b> + <b>CVHB<sub>4</sub></b> + : Cultural Values of Heritage Buildings in  <b>CVHB<sub>5</sub></b> + <b>CVHB<sub>6</sub></b> + <b>CVHB<sub>7</sub></b> + <b>CVHB<sub>8</sub></b> Malaysia.</p> <p>(3) <b>FM<sub>1</sub></b> + <b>FM<sub>2</sub></b> + <b>FM<sub>3</sub></b> + <b>FM<sub>4</sub></b> : <b>FM</b> perspective for conserving <b>CVHB</b> in  Malaysia.</p>	
<p><u>Documents Review</u></p> <p>(4) <b>D<sub>1</sub></b> + <b>D<sub>2</sub></b> + <b>D<sub>3</sub></b> + <b>D<sub>4</sub></b> : Documents used in conserving <b>CVHB</b> in  Malaysia.</p>	

**Table 3** showed two matrix sections, which are Expert Interviews and Documents Review. EI will be conducted at the strategic level or **R<sub>1</sub>** and **R<sub>2</sub>**; tactical level or **R<sub>3</sub>** and **R<sub>4</sub>**; and operational level or **R<sub>5</sub>**; **R<sub>6</sub>**; **R<sub>7</sub>**; and **R<sub>8</sub>** in order to gain expert views in achieving the aim and objectives of the research. A further explanation and elaboration of the respondent's backgrounds are discussed in **Chapter 5** in **Section 5.2**.

Four documents (**D<sub>1</sub>** + **D<sub>2</sub>** + **D<sub>3</sub>** + **D<sub>4</sub>**) used in conserving **CVHB** in Malaysia will be reviewed to understand, synthesise, and to construct the data collection of the research. These sources of evidences will also be used to verify the responses from the respondents and also to be employed in developing the theoretical framework of the research. The analyses of these documents are discussed in **Chapter 5** in **Section 5.5** and also in **Chapter 7** in **Section 7.4.4** in discussion of the Document Reviews in verifying the respondent's responses.

### 3.8 Method of Analysis

In any study or research, data analysis is overwhelming and hectic. There is no standardised procedure for analysing the data. According to Easterby-Smith *et al.* (2002), to make the data collected meaningful to the study, a clear explanation of how the analysis is done and a demonstration of how the raw data is transformed into a meaningful conclusion is required. Burns (2000) asserted that the purpose of data analysis is to find meaning and this is done by systematically arranging and presenting the information.

Since this research uses an inductive approach, the verification of data generation, analysis, and theory verification takes place concurrently when constructing and building a theory. In this research, content analysis and template analysis will be undertaken in order to obtain the generalisations of the findings.

#### 3.8.1 Content Analysis

The data gathered from the Expert Interviews and Document Reviews will be analysed using content analysis. Content analysis is an important and powerful tool in analysing qualitative research that has a systematic technique and collates valid inferences from texts (or other meaningful matter) into fewer content categories based on explicit rules of coding and themes (Stemler, 2001; and Krippendorff, 2004; Wilkinson and Birmingham, 2003; and Babbie, 2007, Saldana, 2009).

For instance, in employing content analysis, all the interview transcripts from the expert interviews were carefully considered to obtain a sense of the whole data. The respondents' responses were extracted and brought together into one table, which constituted the unit of analysis. The table is divided into "respondent identifier"; "interview text"; "interpretation of the underlying meaning", and "descriptive codes".

Considering the context of the views and perceptions' of respondents are complex and complicated to understand, therefore the meaning of the "interview texts" was condensed into an "interpretation of the underlying meaning" that will be summarised and manifests the content of the responses. The condensed "underlying meaning of the interpretation" was seen as a whole and abstracted into "descriptive codes". The "descriptive codes" were the thread of meaning running through the condensed text that was encrypted.

In this research, the "descriptive code" highlights and represents the key features of the research. The "descriptive code" is an epistemological criterion that manifests the variables of **CVHB** and **FM** perspectives which are used in generalising the objectives of the

research. A further elaboration of the descriptive code is discussed in **Section 3.9** of this chapter.

Content analysis for the documents will also consist of four columns (respondent identifier”; “interview text”; “interpretation of the underlying meaning”, and “descriptive codes”). Examples of content analysis for the expert interviews are shown in **Table 4**.

Hence, the rationale for applying content analysis in this research is because it provides insights directly via texts and transcripts of documents taken verbatim from the respondents answering questions based on the research objectives for the research.

### **3.8.2 Template Analysis**

According to King (2006), template analysis is a form of thematically organising and analysing textual data that focuses on using the textual content to describe a phenomenon. Template Analysis is used in the process of organising and analysing textual content (Crabtree and Miller, 1999). Furthermore, Saunders *et al.* (2009) asserted that a list of categories, codes or templates represent the themes or issues revealed from the data that has been collected. These codes are very important in the interpretive process of developing a theoretical framework. In addition, template analysis is a flexible technique with fewer specific procedures that permit a researcher to tailor the procedures to match the requirements of their aim and objectives (King, 2006).

In this research, Template Analysis will be adopted in developing the theoretical framework of conserving **CVHB** from **FM** perspectives. Therefore, three main phases in applying template analysis for this qualitative research will be used. They are:

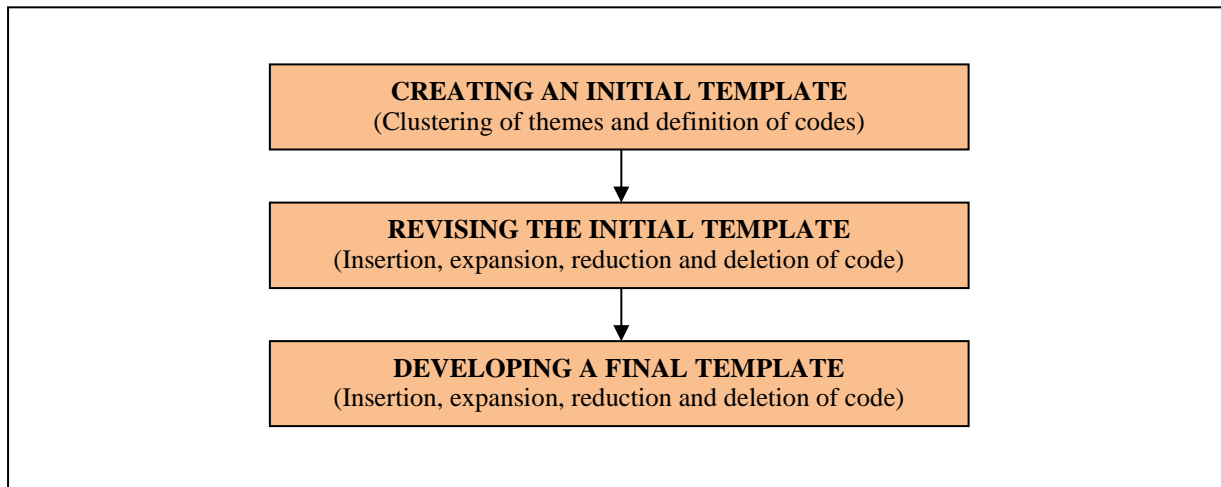
- (1) Creating an initial template;
- (2) Revising the initial template; and
- (3) Developing a final template.

**Figure 10** showed the main phases for applying template analysis in qualitative research.

**Table 4:** Examples of Content Analysis for the Expert Interviews.

<b>RO<sub>2</sub> : UNDERSTANDING THE CURRENT PRACTICE OF CONSERVING CVHB IN MALAYSIA</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Strategic: R<sub>1</sub></b>	Preservation and conservation of heritage buildings in Malaysia are based on the National Heritage, the Outstanding Universal Value or OUV, Guidelines for Conservation, and also Conservation Management or CMP. All the Cultural Values of Heritage Buildings are under those documents.	<ul style="list-style-type: none"> <li>- Conservation of heritage buildings in Malaysia are based on:-               <ul style="list-style-type: none"> <li>• The National Heritage Act<sub>1</sub>;</li> <li>• The Outstanding Universal Value<sub>2</sub>;</li> <li>• The Guidelines for Conservation of Heritage Building in Malaysia<sub>3</sub>; and</li> <li>• The Guidelines for Conservation Management Plan of Malacca<sub>4</sub>.</li> </ul> </li> <li>- All eight classifications of <b>CVHB</b><sub>5</sub> are stated in these four documents.</li> </ul>	<ul style="list-style-type: none"> <li>1 : <b>NHA - D<sub>1</sub></b></li> <li>2 : <b>OUV - D<sub>2</sub></b></li> <li>3 : <b>GCHB - D<sub>3</sub></b></li> <li>4 : <b>CMP - D<sub>4</sub></b></li> <li>5 : <b>CVHB (1-8)</b></li> </ul>
<b>Strategic: R<sub>2</sub></b>	This section is the Registration and Enforcement section. It ensures that the Cultural Values are guaranteed. Normally, a heritage building is gazetted as a heritage building based on the Heritage Act that emphasises the aesthetic, archaeological, architectural, cultural, historical, scientific, social, spiritual, linguistic, and technological features.	<ul style="list-style-type: none"> <li>- In the Registration and Enforcement section, conservation of a heritage building is according to:-               <ul style="list-style-type: none"> <li>• The National Heritage Act<sub>1</sub>; that emphasises all <b>CVHB</b><sub>2</sub> including archaeological, architectural, cultural, spiritual, linguistic, and technological features.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>1 : <b>NHA - D<sub>1</sub></b></li> <li>2 : <b>CVHB (1-8)</b></li> </ul>

**Figure 10:** Three Main Phases for Applying Template Analysis in Qualitative Research.



*Source:* Adapted from King (2006).

The detail of applying template analysis begins with:

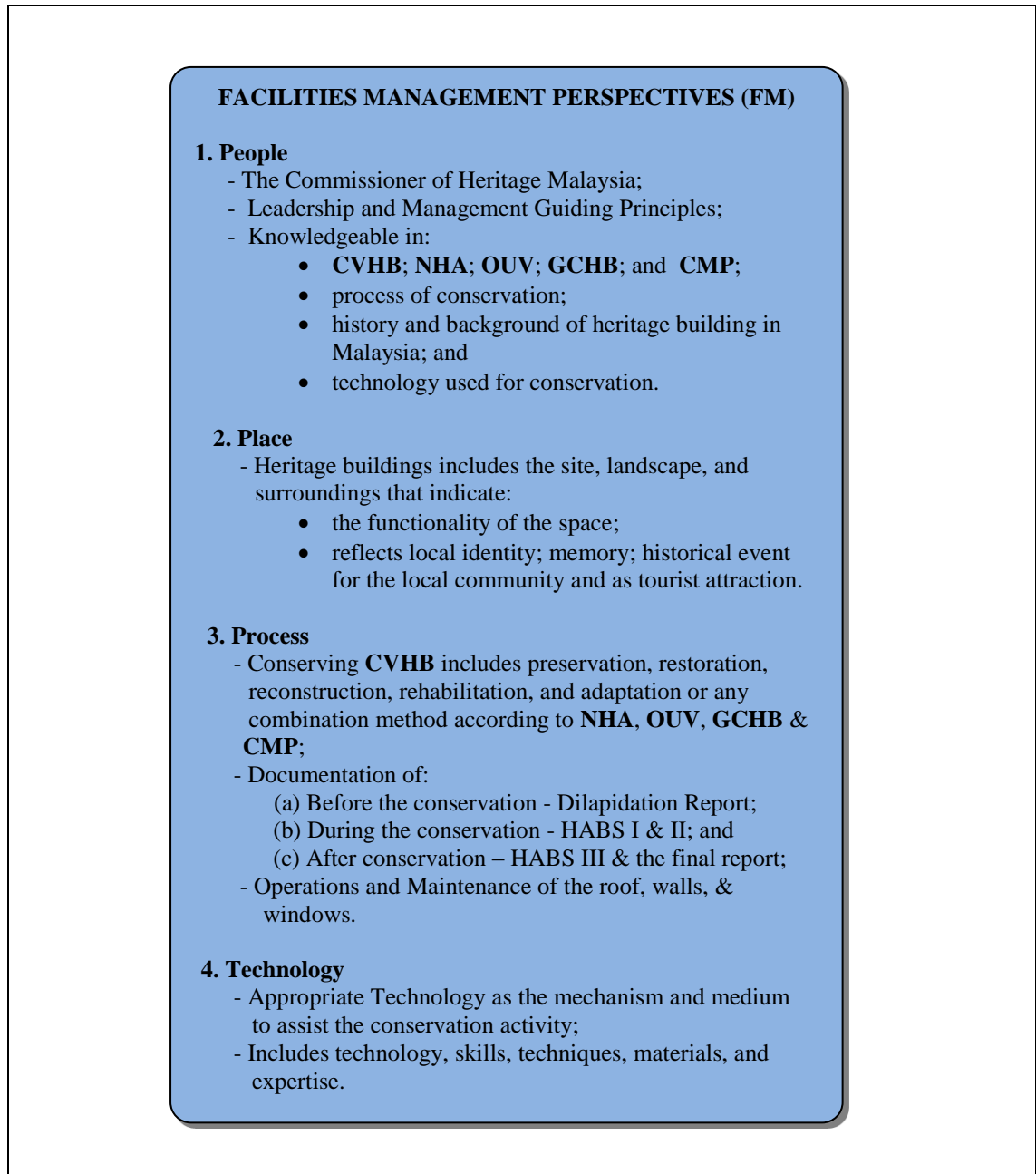
(1) Creating an INITIAL Template:

Defining codes and clustering the themes are the two main processes in the development of the initial template analysis. According to King (2011), “themes” are features of the respondent’s perception or experiences relevant to the research question while “coding” refers to the process of identifying themes in accounts and attaching labels (codes) to index them.

In this study, the “themes” of this research are more related to the Research Objectives (**RO**) and the “codes” (or more specifically known as descriptive codes for this research) has been processed by the Matrix Thematic. However, the process of coding will be explained in **Section 3.8** of this chapter.

**Figure 11** illustrates an example of the INITIAL Template for **FM** perspectives for this study. The INITIAL Template shown is from the expert interviews and document reviews of the study.

**Figure 11:** Example of the INITIAL Template for FM perspectives.



(2) Revising the INITIAL Template:

After the INITIAL Template is completed, it can be developed until the researcher feels that it gives as good a representation as possible of the “themes” identified in the data (King, 1998). According to King (2006), once the INITIAL Template is constructed, the researcher needs to revise it in order to reveal any inadequacies that arise within the template. It will involve insertion, deletion, changing the scope and also adjusting the higher-order classification of a “theme”.

In this research, revising the INITIAL Template will be done at the validation phase of the research. The insertion, expansion, reduction, and deletion of the



“code” will occur at this phase. Revising the template will be discussed later on in **Chapter 7** in **Section 7.4** where developing the INITIAL theoretical framework for conserving CVHB from FM perspectives in Malaysia will be discussed.

(3) Developing a FINAL Template:

According to King (2006), there is no stage at which the researcher can say with absolute certainty that the template is “finished”. This is because there are always other ways of interpreting any set of qualitative data (King, 2011). Moreover, the decision of when to stop analysing data is a critical point among researchers (Abukhzam, 2011).

Therefore, a “considered” FINAL Template exists when most or all transcribed data has been read through at least three or four times and when the researcher is confident that the template is accurate. Moreover, King (2006) asserted that the researcher may insert, expand, reduce, and delete some of the material that was not successfully encompassed in the FINAL Template or change the template as and when necessary to know when to stop the development of the template.

However, in this study, the FINAL Template is established after it is validated and verified by the Strategic level respondents. **Chapter 8** in **Section 8.3** represents the FINAL Template of the theoretical framework of CVHB-FM in Malaysia.

### **3.9 The Coding Process**

Trying to learn the basics of coding and qualitative data analysis simultaneously with the sometimes complex instructions and multiple functions of a CAQDAS programme (Bazeley, 2007; Lewins & Silver, 2007) such as NVivo by QSR International (Bazeley, 2007; Lewins & Silver (2007); Code Manager by ATLAS.ti, and MAXQDA’s A Code Relations Browser can be overwhelming for some researchers. Mostly, the researcher’s mental energies may be more focused on the software than the data (Saldana, 2009). According to Bazeley (2007: 92), manual coding is recommended for first-time researchers using small-scale studies and coding on hard-copy printouts. Furthermore, Saldana (2009) asserted that by coding manually, manipulating qualitative data on paper and writing codes in pencil enables the researcher to have more control over and ownership of the research. Hard-copy manual coding facilitates data handling and turns abstract information into concrete data (Graue & Walsh, 1998).

Descriptive Code is just one approach for analysing the data's basic topics to assist with answers to questions such as "What is going on here?" and such reflective questions as "What is this study about?" Turner (1994) calls this coding as the cycle development of a "basic vocabulary" of data forming and as the "bread and butter" categories for further analytical work. Furthermore, Wolcott (1994) stressed that descriptive code is the foundation for qualitative inquiry, and its primary goal is to assist the reader to see what you saw and to hear what you heard.

According to Tesch (1990: 119), "*Descriptive Code identifies the topic which is what has been talked or written about; and the content is the substance of the message*". Saldana (2009: 70) asserted that the "*Descriptive Code is appropriate for virtually all qualitative studies, but particularly for inexperienced qualitative researchers learning how to code data and studies using a wide variety of data forms, for instance interview transcripts, field notes, journals, documents, diaries, correspondence, artefacts, and video*".

On the other hand, categorisation of Descriptive Code depends on the volume of data, specificity, or amount of detail needed for data analysis and generalisation of the study. Descriptive Code can be assigned more detailed coding as the "Sub-Codes" when it is needed (Miles & Huberman, 1994). Furthermore, Gibbs (2007) explained that the most general code is called the "Parent" while its Sub-Codes are the "Children"; hence "Sub-Codes" that share the same "Parent" are the "siblings" in a hierarchy.

In this research, only "Parent-Code" is applied in order to generalise the topics. For instance, for the variables of **CVHB** such as **SOCIAL**, this is coded as **CVHB<sub>1</sub>**; **ECONOMIC** is coded as **CVHB<sub>2</sub>** and so on. All the "Parent-Code" of this research is shown in **Table 1** of the research display in **Section 3.6** of the analysis flow of the research.

On the other hand, the "Descriptive Code" column has also been placed in the application of Content Analysis (refer to **Table 4**: Examples of the Content Analysis for the Expert Interviews) in order to summarise and highlight the "topic" which is discussed by the respondents.

The Descriptive Code's topics which are gathered from the responses from the expert interviews and document reviews are then used in establishing the objectives of the research. For instance, the overall summarisation of the descriptive code in **Chapter 5** in **Section 5.6** from the documents review are used to establish the Research Objective 2 (**RO<sub>2</sub>**) in understanding the current practice in conserving **CVHB** in Malaysia.

### 3.10 Validity and Reliability

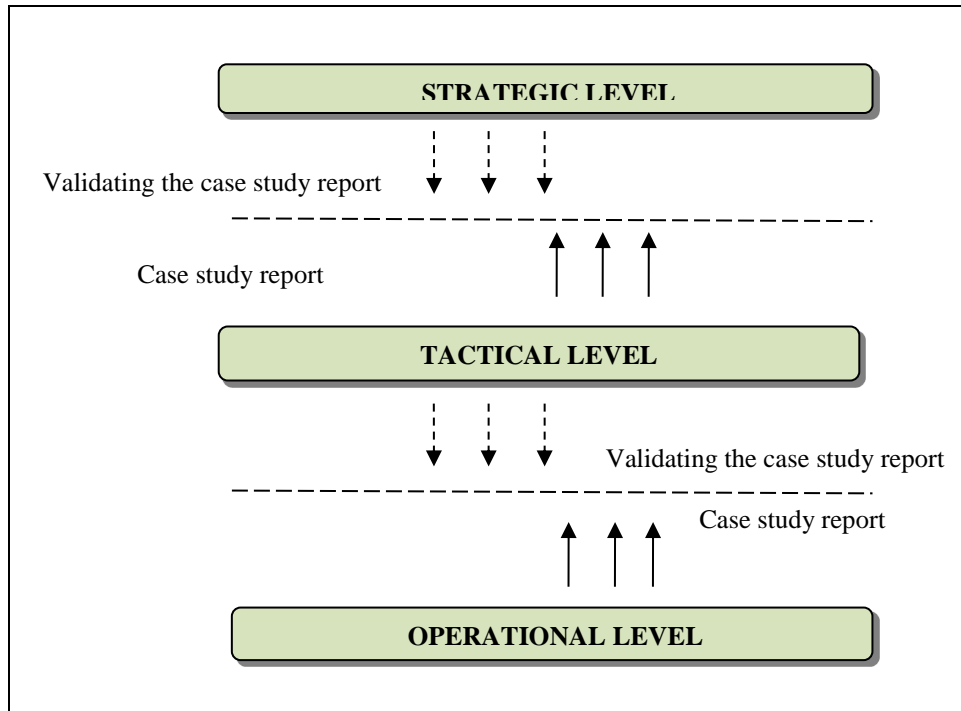
Validity and reliability are important aspects of qualitative research. The question that remains to be answered is “how to maximise the validity and reliability in this research?” According to Gibbs (2007), “*validity in qualitative research is referred to as the verification process of the findings employed by the researcher*”. On the other hand, reliability indicates the consistency and dependability across multiple sources of evidence (Lincoln and Guba, 1985). Therefore, in this current research the validity and reliability will be maximised and revealed by adopting the case study tactics and procedures recommended by Yin (2003 and 2009). **Table 5** below indicates the case study tactics for validity and reliability.

**Table 5:** Case Study Tactics for Validity and Reliability.

TESTS	CASE STUDY TACTICS	PHASE OF RESEARCH IN WHICH TACTIC OCCURS	ACTION TAKEN IN THIS RESEARCH
Validity	<ul style="list-style-type: none"> <li>Application of multiple sources of evidence from three levels of Conservation Practitioners.</li> </ul>	Data collection	<ul style="list-style-type: none"> <li>Triangulation of evidences (multi-level of Conservation Practitioners) using semi-structured interview.</li> </ul>
	<ul style="list-style-type: none"> <li>Establish chain of evidence</li> </ul>	Data collection	<ul style="list-style-type: none"> <li>Interview data from each level will be recorded and transcribed in real time for the triangulation sources; in order to integrate responses received from the respective respondents.</li> </ul>
	<ul style="list-style-type: none"> <li>Key informants at Strategic Level will review draft of case study report from Tactical Level; and Operational Level will be validated by the Tactical Level (Refer to <b>Figure 12</b>).</li> </ul>	Composition	<ul style="list-style-type: none"> <li>The key informants’ responses at Operational Level will be validated by people at the Tactical Level; responses at the Tactical Level will be validated at the Operational Level. This test will help the researcher to construct the validity of the findings.</li> </ul>
Reliability	<ul style="list-style-type: none"> <li>Application of the case study protocol.</li> </ul>	Data collection	<ul style="list-style-type: none"> <li>Same data collection procedure followed for each case; consistent set of questions used in each interview.</li> </ul>
	<ul style="list-style-type: none"> <li>Developing the case study database.</li> </ul>	Data collection	<ul style="list-style-type: none"> <li>Verification of interview transcripts and other multiple sources (documents used in the conservation process) are entered into database.</li> </ul>

Source: Adapted from Yin (2003, 2009).

**Figure 12:** Validation of the Chain of Evidences.



According to **Table 5**, this particular research applies triangulation in order to increase the validity of the study. Triangulation is a way of improving the reliability of a study that uses multiple methods of data collection (Gray, 2004). In this research, the multiple levels of conservation practitioners (strategic, tactical, and operational) took part in interviews using a similar set of questions. Hence, each interview's data are recorded and transcribed in the real time in order to integrate the views received in establishing the chain of evidence.

**Figure 12** above indicates that the validation of the chain of evidence occurred when individuals at the strategic level validated the people at the tactical level; and personnel who deliver the practices operationally will be validated by the tactical level individuals. Therefore, this composition will help to construct the validity of the research findings.

On the other hand, the goal of reliability is to minimise the errors and biases in a study (Yin, 2003). According to Miles and Huberman (1994), reliability focuses on whether the process of the study is consistent, reasonably stable over time and across the researcher's methods. Thence, to address the issue of reliability, a case study protocol was developed to provide the consistency procedures for collecting and analysing data along with effective reporting of the findings; this enabled errors to be minimised and biases to be eliminated. Furthermore, in this study, verification of the interview transcripts and documents used in the conservation process ( $D_1 + D_2 + D_3 + D_4$ ) are entered into a database in order to achieve the reliability of the research.

### **3.11 Research Ethics**

The conduct of this research is guided by the university's code of ethics that provide a statement of principles and procedures for the conduct of research work. In line with the requirements of the university, a formal application for ethical approval has been submitted and approved by the Research Ethics Panel, University of Salford. The ethical approval is critical to avoid misconduct in research data analysis and interpretation, as well as during writing and dissemination of research that includes anonymity of respondents, informed consents, as well as analysing, interpreting, and safeguarding data.

### **3.12 Summary and Link**

This chapter discussed the research methodology adopted and applied for this current study. It consisted of ten sub-sections which include the research process; research philosophy; research approach; research strategy; research technique; developing the theoretical framework; method of analysis; the coding process; validity and reliability; and also the research ethics.

The next chapter presents the Research Objectives 1 or **RO<sub>1</sub>** in appraising and synthesising Cultural Values of Heritage Buildings (**CVHB**).

## CHAPTER 4: APPRASING AND SYNTHESISING THE CULTURAL VALUES OF HERITAGE BUILDINGS

### 4.1 Introduction

This chapter is focused on the findings of Research Objective 1 (**RO<sub>1</sub>**) in appraising and synthesising Cultural Values of Heritage Buildings. Accordingly, this chapter is structured as follows:

- Understanding Cultural Values of Heritage Buildings Concept;
- Mapping Cultural Values of Heritage Buildings with Facilities Management perspectives; and
- Summary of the Chapter and Link.

### 4.2 Understanding Cultural Values of Heritage Buildings Concept

Heritage buildings are evaluated and conserved according to the Cultural Values (CV) principles provided by ICOMOS (1999), English Heritage (2008), and UNESCO (2008). The CV are coded into Primary Values (PV) and Secondary Values (SV) and consist of eight major aspects; social, economic, political, historic, aesthetical, scientific, age, and ecological, while the SV are varied and correspond to these eight PV. **Table 6** indicates the list of the Cultural Values of Heritage Buildings (**CVHB**) concept according to the PV, SV, and their references.

Initially, four CV; social, historic, aesthetical, and scientific were established by UNESCO's World Heritage Committee (2008) and classified as PV. These were followed by economic, political, ecological (Riganti and Nijkamp, 2005) and age (Piper, 1948; Lowenthal, 1985; Reigl, 1982) which were introduced to complement the pillars of conservation development that were adopted by UNESCO.

According to Mason (2002), the social values of heritage assets are frequently conveyed by concepts such as the spirit of the place or *genius loci*. The social values are associated with the place and with feelings of identity, distinctiveness, social interaction coherence (English Heritage, 2008) and a sense of belonging that enables the establishment of spiritual links between people and buildings.

**Table 6:** The Cultural Values of Heritage Buildings Concept.

PRIMARY VALUES	SECONDARY VALUES		REFERENCES
	SOCIAL	Spiritual	Belief, myths, religions (organised or not) legends, stories, testimonials of past generations
Emotional , individual		Memory and personal life experiences;	
Emotional , collective		Notions related to cultural identity, motivation and pride, sense of ‘place attachment’ and communal value;	
Allegorical		Objects/places representative of some social hierarchy/status;	
ECONOMIC	Use	The function and utility of the asset, original or attributed;	
	Non-use	The asset’s expired function, which has its value in the past and should be retained for its (material) existence, option (to make some use of it or not) and bequest value (for future generations);	
	Entertainment	The role it might have for contemporaneous market, mainly for tourism industry;	
	Allegorical	Oriented to publicising financial property;	
POLITICAL	Educational	The educational role that heritage assets may play, using it for political targets (e.g. birth-nations myths, glorification of political leaders, etc);	
	Management	Made part of strategies and policies (past or present);	
	Entertainment	Part of strategies for dissemination of cultural awareness, explored for political targets;	
	Symbolic	Emblematic, power, authority and prosperous perceptions stem from the heritage assets;	
HISTORIC	Educational	Heritage assets as a potential to gain knowledge about the past in the future;	
	Historic-artistic	Quality of an object to be part of a few or unique testimonials of historic stylistic or artistic movements which are now part of history;	
	Historic-conceptual	Quality of an object to be part of a few or unique testimonials that retain conceptual signs (architectural, urban planning, etc.), which are now part of history;	
	Symbolic	Fact that the object has been part/related to an important event in the past;	
	Archaeological	Connected with ancient civilisations;	
AESTHETICAL	Artistic	Original product of creativity and imagination;	
	Notable	Product of a creator, holding his signature;	
	Conceptual	Integral materialisation of conceptual intentions (imply a conceptual background);	
	Evidential	Authentic exemplar of a decade, part of the History of Art or Architecture;	

Source: Adapted from ICOMOS (1999); English Heritage (2008); and UNESCO (2008).

**Table 6(continued):** The Cultural Values of Heritage Buildings Concept.

PRIMARY VALUES	SECONDARY VALUES		REFERENCES
	SCIENTIFIC	Workmanship	Original result of human labour, craftsmanship;
		Technological	Skilfulness of techniques and materials, representing an outstanding quality of work;
		Conceptual	Integral materialisation of conceptual intentions (imply a conceptual background);
	AGE	Workmanship	Craftsmanship value oriented towards the production period;
		Maturity	Piece of memory, reflecting the passage/lives of past generations;
		Existential	Marks of the passage of time (patina) present on the forms, components and materials;
	ECOLOGICAL	Spiritual	Harmony between the building and its environment (natural and artificial);
		Essential	Identification of ecological ideologies on its design and construction;
Existential		Manufactured resources which can either be reused, reprocessed or recycled;	

*Source:* Adapted from ICOMOS (1999); English Heritage (2008); and UNESCO (2008).

Scholars such as Thorsby (1999, 2007), Mason (2002), and Peacock and Rizzo (2008) comprehended economic values as distinct from other PV because the interpretation is fundamentally different. For instance, Snowball and Courtney (2010) stated that economic values in cultural heritage can be classified into two categories namely; market value (determined by the sale price) and non-market value (or externality). However, the economic values (market or non-market) are understood through the logic of market and profit in which the potential function and the income obtained from its use are measured.

Silva and Roders (2012) perceived that political values might not be related to power, pride, distinctiveness and ideological approaches, but could be symbolised by the power struggle and exertion that determine the fate of cultural heritage. With regard to this, the political power may have resulted from a political decision, hence; political in this context is more or less about the power of the value of the heritage building itself from a cultural perspective.

Apart from this, historic values need to be maintained as genuinely as possible and documentation to justify their permanent retention for future art-historical research (Piper, 1948; and Reigl, 1982) needs to be instituted. Conversely, Reigl (1982) asserted that historic values are identical to the “informational value” proposed by Lipe (1984) which brings about the current generation’s appreciation of heritage assets from the past.



In addition to the historic values are the values of age (Roders, 2007). The age values depend on the knowledge of the age, which rests partly on the perception of traces of decay and aging (Piper, 1948; and Lowenthal, 1985). The age values contribute to the aura and authenticity of an object and create the context of nostalgia. Regarding this, Reigl (1982) stated that “age value manifests itself immediately through visual perception and appeals directly to our emotions”.

The aesthetical values, as with the historic values, are traditionally used to label objects and places. It is probably the most subjective and individualistic aspect of socio-cultural values (Mason, 2002). This is because, traditionally, the aesthetic values result from the way humans draw sensory and intellectual stimulation from a place (English Heritage, 2008). Apropos, there are some aspects of aesthetical values that can be objectively measured through creativity, conceptualisation and preservation of the related attributes (Roders, 2007).

Meanwhile, the scientific values are focused on the design process and conceptualisation of the cultural heritage assets (Roders, 2007) and are perceived as a masterpiece of technology and engineering (Silva and Roders, 2012). Furthermore, according to ICOMOS (1999), the scientific value of a heritage asset depends on the importance of the data involved, its rarity and quality or representation value and on the degree to which the asset may contribute to future knowledge.

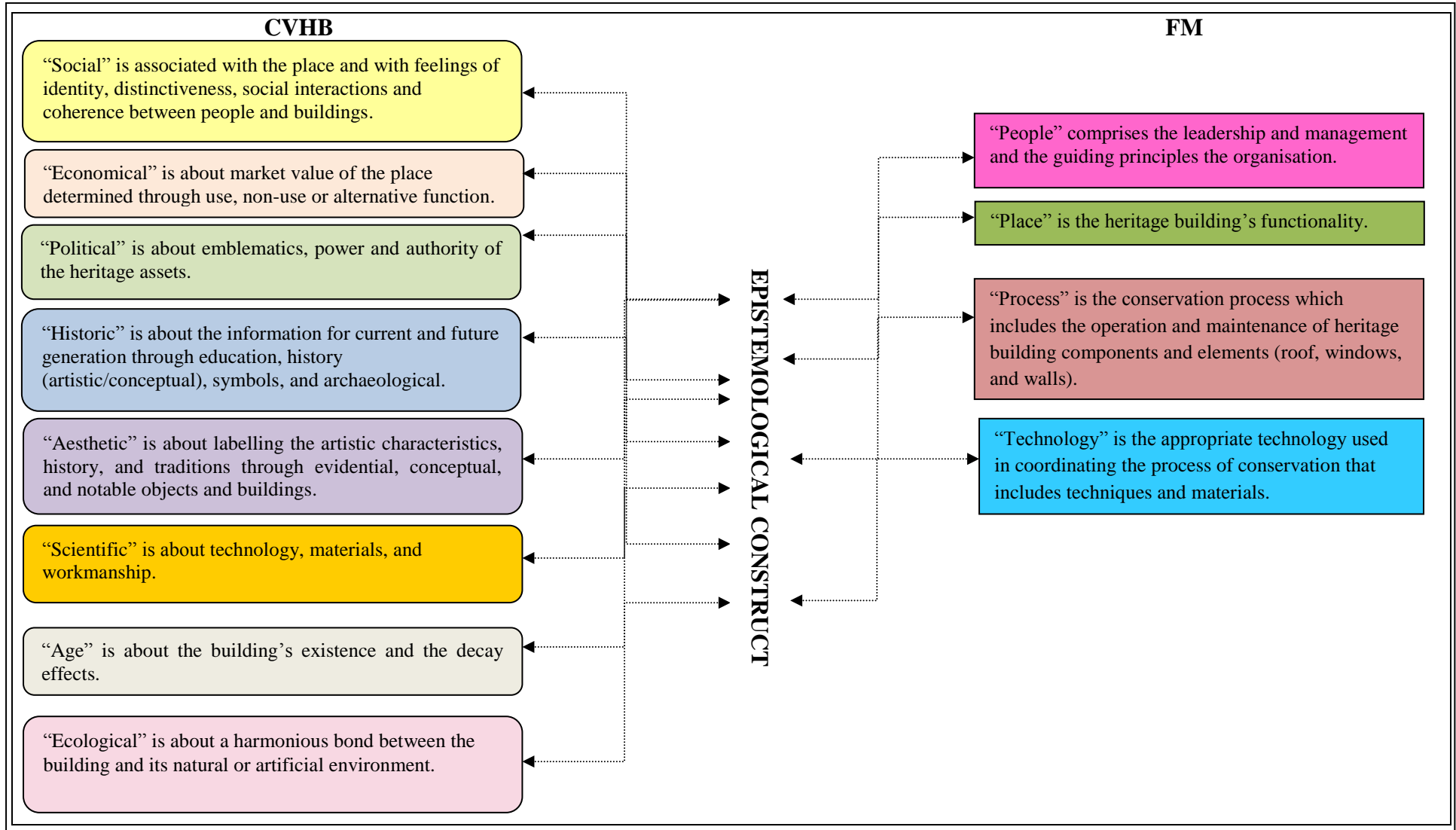
The ecological values are first mentioned in the Declaration of Amsterdam (Council of Europe, 1975). They refer to the relationship between heritage assets and the natural environment (Silva and Roders, 2012). The heritage asset’s ecological values provide a harmonious bond between the building and its natural or artificial environment.

As a conclusion, all these eight characteristics of social, economic, political, historic, aesthetical, scientific, age, and ecological have been established as the **CVHB** which later will be integrated with **FM** perspective in developing the theoretical framework of the study.

### **4.3 Mapping Cultural Values of Heritage Buildings with Facilities Management perspectives**

In mapping the theoretical framework, eight classifications of the **CVHB** concept have been summarised for the purpose of the study. The summarised **CVHB** concept are then integrated and linked with **FM** perspectives of people, place, process, and technology in sustaining the physical condition of heritage buildings in Malaysia. The **FM** perspectives were discussed earlier, in **Chapter 2** of the Literature Review. **Figure 13** indicates the linkages and integration of **CVHB** with **FM** perspectives.

**Figure 13:** The Linkages and Integration of Cultural Values of Heritage Buildings with Facilities Management perspectives.



**Figure 13** has synthesised the eight classifications of **CVHB** with the **FM** perspective of people, place, process, and technology. For the purpose of this research the core of eight characteristics PV of **CVHB** with **FM** perspective is integrated in mapping the theoretical framework which is then synthesised. The SV of **CVHB** are not included in developing the framework due to the complexity and overlapping themes under SV criteria. Therefore, each of the **CVHB** is not rigid to be linked and integrated with only one **FM** perspective at a time. The dotted arrows in **Figure 13** reflect multi-linkages of **CVHB** with the **FM** perspective.

Referring to **Figure 13**, **CVHB** of “historic”, “aesthetic” and “social” are epistemological constructed with **FM** of “people”. “People” perceived a heritage building as “historic”, “aesthetic”, and “social” as it informs past information with distinctive notable people and events. These informative values tend to represent evidences illustrating the history or prehistory that are a link between the past and present events. Due to this, “people” in **FM** conserved the heritage building through the characteristic of “historic”, “aesthetic” and “social” values.

“Economic” and “political” values are constructed with the **FM** “place” functionality. Thus, **FM** “place” is conserved because it represents the “economic” value of the place as a tourist spot; and the “political” value that reflects the power and authority of the occupant of the place.

The **CVHB** of “age” and “ecological” are inter-linkages with **FM** “process” perspective. The **FM** “process” perspective will retain the “age” existence of the heritage building and preserve the “ecological” value of the site and its existential surroundings.

On the other hand, **FM** “technology” is about the appropriate technology used in coordinating the process of conservation that includes techniques and materials. Hence, **CVHB** of “scientific” is epistemologically constructed with “technology” in retaining the techniques, materials, and workmanship of the heritage building conservation.

In conclusion, the above explanation has synthesised the eight classifications of **CVHB** which are social, economical, political, historic, aesthetic, scientific, age, and ecological that are epistemologically constructed **FM** perspective of people, place, process, and technology. As mentioned earlier, the linkages and integration of **CVHB** with **FM** are not rigid and have the multi-linkages tendencies. Therefore, the above discussion between the linkages and integration of **CVHB** and **FM** are established to achieve the **RO<sub>1</sub>** of appraising and synthesising the **CVHB**. An actual integration and inter-linkages between **CVHB** and **FM** perspective will be discussed during the development of the theoretical framework in this research.

#### 4.4 Summary and Link

This chapter has presented the **RO<sub>1</sub>** of appraising and synthesising the **CVHB**. This chapter elaborates the terminology of each of the **CVHB** characteristics. Furthermore, the integration and inter-linkages between **CVHB** and **FM** are also elucidated.

Next is the Research Objective 2 or **RO<sub>2</sub>** in understanding the current practice in conserving **CVHB** in Malaysia.

## CHAPTER 5: UNDERSTANDING THE CURRENT PRACTICE IN CONSERVING CULTURAL VALUES OF HERITAGE BUILDINGS IN MALAYSIA

### 5.1 Introduction

This chapter is focused on the findings of Research Objective 2 or **RO<sub>2</sub>** in understanding the current practice in conserving **CVHB** in Malaysia. Accordingly, this chapter is structured as follows:

- Firstly the background details of identified respondents for the Expert Interviews are provided;
- Secondly, the Content Analysis is presented, based on the responses from the Expert Interview which are aimed at **RO<sub>2</sub>**;
- Thirdly, this chapter analysed the documents used in conserving **CVHB** in Malaysia; and
- Finally, the summary of the chapter and link are presented.

### 5.2 Background of Identified Respondents

A series of Expert Interviews are conducted at the strategic, tactical, and operational level from the conservation practitioners in Malaysia. In total eight Expert Interviews were conducted. Eight respondents (**R<sub>1</sub> + R<sub>2</sub> + R<sub>3</sub> + R<sub>4</sub> + R<sub>5</sub> + R<sub>6</sub> + R<sub>7</sub> + R<sub>8</sub>**) were chosen because they are actively involved in the process of conserving **CVHB** in Malaysia. The details of the eight experts interviewed are presented as follows (refer to **Table 7**).

**Table 7:** The Detailed Background of Identified Respondents.

Level	Respondent Identifier	Role	Expertise
Strategic	<b>R<sub>1</sub></b>	Deputy Commissioner of Cultural Heritage Department Malaysia;	FM; conservation

**Table 7 (continued):** The Detailed Background of Identified Respondents

<b>Level</b>	<b>Respondent Identifier</b>	<b>Role</b>	<b>Expertise</b>
Strategic	<b>R<sub>2</sub></b>	Director of Registration and Enforcement, Cultural Heritage Department Malaysia;	conservation
Tactical	<b>R<sub>3</sub></b>	Director of World Heritage Organisation of Malacca;	conservation
	<b>R<sub>4</sub></b>	Conservation Architect of Malacca City Council;	conservation
Operational	<b>R<sub>5</sub></b>	Curator / Conservator I for Malacca Museum Corporation;	conservation
	<b>R<sub>6</sub></b>	Curator / Conservator II for Malacca Museum Corporation;	conservation
	<b>R<sub>7</sub></b>	Curator Assistant for Malacca Museum Corporation;	conservation
	<b>R<sub>8</sub></b>	Contractor/ Appointed Conservator.	conservation

**R<sub>1</sub>** who is the policy maker, is the Deputy Commissioner of the Department of Cultural Heritage, Ministry of Information Communications and Culture of Malaysia. She was an academician before she joined the Department of Cultural Heritage. She is specialised in **FM**, and expert in heritage buildings in Malaysia.

**R<sub>2</sub>** is the Director of Registration and Enforcement of the Cultural Heritage Department. He is expert in conservation of Cultural Values (CV) of tangible and intangible heritage in Malaysia. Tangible cultural heritage consist of buildings, monuments, historical sites and cultural landscapes; intangible cultural heritage includes the practices, expressions, representations, expressions, knowledge, skills of communities, as well as objects and instruments (UNESCO, 1972, 2003, and 2005; ICOMOS, 2002).

**R<sub>3</sub>** is the director of the World Heritage Organisation (WHO) of Malacca which was established in order to monitor and implement the best practice of conservation in Malacca. He is one of the key people who drafted the National Heritage Act (NHA) of Malaysia to conserve the tangible and intangible aspects of cultural heritage.

**R<sub>4</sub>** is the conservation architect of Malacca City Council who is responsible for monitoring the conservation work of historical sites in Malacca. She is an expert in conservation work for the heritage buildings in Malacca.

**R<sub>5</sub>** and **R<sub>6</sub>** are both conservators of the Malacca Museum Corporation which managed the *Stadhuys* or Red Building in Malacca. They were both experts in the operation and maintenance of the Red Building. Meanwhile **R<sub>7</sub>** is the assistant to **R<sub>5</sub>** and **R<sub>6</sub>**.

**R<sub>8</sub>** is the Contractor and Appointed Conservator who is responsible for the operation and maintenance of the Red Building in Malacca. He is an expert in the conservation work for operations and maintenance of historic buildings in Malaysia.

### 5.3 Responses from the Expert Interviews

This section represents the findings of **RO<sub>2</sub>**, which are about the current practice of conserving **CVHB** in Malaysia. These findings or the interview's transcripts for **RO<sub>2</sub>** will be extracted and brought together into one table, divided into "Respondent Identifier", "Interview Text", "Interpretation of the Underlying Meaning", and "Descriptive Code".

Content Analysis is used to analyse the "Interview Text" which interprets and summarises the "Underlying Meaning of the Interview Text". It is then coded as the "Descriptive Code" to outline the theme of the research which will then be mapped to develop the theoretical framework of the study. **Table 8** indicates the Content Analysis for the Expert Interviews of **RO<sub>2</sub>** in this research.

The respondents perceived that all **CVHB (1-8)** which are social, economic, political, historic, aesthetic, age, and ecological have been used as the current practice in conserving heritage buildings in Malaysia. Thence, these conservation practitioners have stated that they have been applying **CVHB** which is in accordance with four vital documents which are used in conservation work in Malaysia. However, all **CVHB (1-8)** are not mentioned briefly and explained by the respondents. Therefore **R<sub>1</sub>** suggested the researcher refers to the four vital documents used, which are:

- **D<sub>1</sub>** – The National Heritage Act of Malaysia (NHA);
- **D<sub>2</sub>** – Outstanding Universal Values (OUV) by UNESCO;
- **D<sub>3</sub>** – Guidelines for Conservation of Heritage Building in Malaysia (GCHB);
- **D<sub>4</sub>** – Conservation Management Plan of Malacca (CMP);

**Table 8:** Content Analysis for the Expert Interviews for Research Objective 2.

<b>RO<sub>2</sub> : UNDERSTANDING THE CURRENT PRACTICE OF CONSERVING CVHB IN MALAYSIA</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Strategic: R<sub>1</sub></b>	Preservation and conservation for heritage buildings in Malaysia are based on the National Heritage, the Outstanding Universal Value or OUV, Guidelines for Conservation, and also Conservation Management or CMP. All the Cultural Values of Heritage Buildings are under those documents.	<ul style="list-style-type: none"> <li>- Conservation of heritage buildings in Malaysia are based on:-               <ul style="list-style-type: none"> <li>• The National Heritage Act<sub>1</sub>;</li> <li>• The Outstanding Universal Value<sub>2</sub>;</li> <li>• The Guidelines for Conservation of Heritage Building in Malaysia<sub>3</sub>; and</li> <li>• The Guidelines for Conservation Management Plan of Malacca<sub>4</sub>.</li> </ul> </li> <li>- All eight classifications of CVHB<sub>5</sub> are stated in these four documents.</li> </ul>	<p><b>1 : NHA - D<sub>1</sub></b>  <b>2 : OUV - D<sub>2</sub></b>  <b>3 : GCHB - D<sub>3</sub></b>  <b>4 : CMP - D<sub>4</sub></b>  <b>5: CVHB (1-8)</b></p>
<b>Strategic: R<sub>2</sub></b>	This section is the Registration and Enforcement section. It ensures that the Cultural Values are guaranteed. Normally, a heritage building is gazetted as a heritage building based on the Heritage Act that emphasises the aesthetic, archaeological, architectural, cultural, historical, scientific, social, spiritual, linguistic, technological features.	<ul style="list-style-type: none"> <li>- In the Registration and Enforcement section, conservation of a heritage building is according to:-               <ul style="list-style-type: none"> <li>• The National Heritage Act<sub>1</sub>; that emphasises all CVHB<sub>2</sub> including archaeological, architectural, cultural, spiritual, linguistic, and technological features.</li> </ul> </li> </ul>	<p><b>1 : NHA - D<sub>1</sub></b>  <b>2: CVHB (1-8)</b></p>



**Table 8 (continued):** Content Analysis for the Expert Interviews for Research Objective 2.

<b>RO<sub>2</sub> : UNDERSTANDING THE CURRENT PRACTICE OF CONSERVING CVHB IN MALAYSIA</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<p><b>Strategic: R<sub>2</sub> (continued)</b></p>	<p>Actually, Cultural Values are very broad. Cultural Values should be included with the authenticity. The authenticity is affiliated with the geographical environment of Malaysia. It is based on the value of history. The history and geographical significance of what should be maintained and preserved in Malaysia.</p> <p>The conservation process begins with Section 24 to Section 31 under the Heritage Act. Standard Operating Procedure (SOP) is implemented in order to check the value or the authenticity of any heritage values. There are 14 specialists in the expert committee of conservation. Each of the heritage building has its own architectural expert to do the screening test in designating the site. A heritage site is the heritage area or zone which has been designated to be conserved. Buildings can also bid to be designated as a heritage site. The most important aspect is the area itself. Then, Notice of Intention will be produce to the owner of the site, that the site or building will be gazetted as a heritage site.</p>	<ul style="list-style-type: none"> <li>• In Malacca, conservation is done by PERZIM or the Malacca City Council under the Notice of Designation in the Heritage Registration Act under Section 23 of the Conservation Management Plan<sub>3</sub>.</li> <li>• The conservation work in Malacca used the Guidelines for Conservation of Heritage Building<sub>4</sub> which includes the manual for preservation and conservation, building facades, and building structure.</li> <li>• OUV<sub>5</sub> is also applied in conserving the <b>CVHB</b> in Malaysia.</li> </ul>	<p><b>3 : CMP – D<sub>4</sub></b></p> <p><b>4: GCHB – D<sub>3</sub></b></p> <p><b>5 : OUV – D<sub>2</sub></b></p>

**Table 8 (continued):** Content Analysis for the Expert Interviews for Research Objective 2.

<b>RO<sub>2</sub> : UNDERSTANDING THE CURRENT PRACTICE OF CONSERVING CVHB IN MALAYSIA</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<p><b>Strategic: R<sub>2</sub> (continued)</b></p>	<p>Notice of Intention is under Section 24 which is proposed by the Heritage Commissioner in order to gazette a heritage site. The Notice of Intention is published in the press after it is gazetted as a heritage site. If there are any objections, anyone can protest about the area gazetted as a heritage site. The Heritage Commissioner will carry out a hearing about the gazetted site if any objections have occurred. A period of 28 days are given to the person (who objects the gazetted site) to defend their stand after the notice of hearing takes place. However, the Heritage Commissioner has the final decision as to proceed or not with the intention of gazetting a heritage site. The most important thing in gazetting a heritage site that it must have the State Government or the Chief Minister of the State's consent.</p> <p>In Malacca, gazetting a place is under the responsibility of PERZIM. PERZIM will issue a notice of designation in the Heritage Registration Act under Section 23. Malacca has its own CMP for conservation.</p>		

**Table 8 (continued):** Content Analysis for the Expert Interviews for Research Objective 2.

<b>RO<sub>2</sub> : UNDERSTANDING THE CURRENT PRACTICE OF CONSERVING CVHB IN MALAYSIA</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Strategic: R<sub>2</sub> (continued)</b>	<p>On the other hand, the conservation work uses the Guidelines for Conservation which includes the manual for preservation and conservation, building facades, building structure, etc. Any changes to the building must be approved by the Commissioner under the Act 172 Town and Country Planning 1976.</p> <p>The most important thing is the OUV in conserving the heritage site.</p>		
<b>Tactical: R<sub>3</sub></b>	<p>This unit is established to monitor and implement the best practice of conservation of heritage buildings and also to conduct an awareness programme for the local community about the importance of preserving and conserving Cultural Values of Heritage Buildings. The heritage buildings are evaluated according to all the Cultural Values based on the National Heritage Act, UNESCO's OUV, CMP, and the Guidelines of Conservation.</p>	<p>- According to the World Heritage Organisation (WHO), the heritage buildings are evaluated according to all <b>CVHB<sub>1</sub></b> based on:-</p> <ul style="list-style-type: none"> <li>• The National Heritage Act<sub>2</sub>;</li> <li>• The UNESCO's OUV<sub>3</sub>;</li> <li>• The CMP<sub>4</sub> for Malacca; and</li> <li>• The Guidelines of Conservation for Heritage Building in Malaysia<sub>5</sub>.</li> </ul>	<p><b>1 : CVHB (1-8)</b></p> <p><b>2 : NHA - D<sub>1</sub></b></p> <p><b>3 : OUV - D<sub>2</sub></b></p> <p><b>4 : CMP - D<sub>4</sub></b></p> <p><b>5: GCHB - D<sub>3</sub></b></p>

**Table 8 (continued):** Content Analysis for the Expert Interviews for Research Objective 2.

<b>RO<sub>2</sub> : UNDERSTANDING THE CURRENT PRACTICE OF CONSERVING CVHB IN MALAYSIA</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<p><b>Tactical:</b> <b>R<sub>4</sub></b></p>	<p>I am the Conservation Architect for the Malacca City Council. This unit focuses more on the enforcement tasks and the policies in gazetted a heritage site.</p> <p>I am assigned to evaluate the Cultural Values of Heritage Buildings based on architectural views. However, conserving a heritage building involves a historian, planner, and building surveyor.</p> <p>I am more focused on the tangible aspects of a building, such as the physical look and material used in conserving a heritage building.</p> <p>Heritage buildings in Malacca have existed for a long time and we perpetuate and monitor the buildings in accordance with UNESCO. We also have the CMP and use the Operational Guidelines to justify the old heritage buildings in Malacca.</p>	<p>- According to the Malacca City Council, conservation of heritage buildings are accordance with:-</p> <ul style="list-style-type: none"> <li>• The National Heritage Act<sub>1</sub> using <b>CVHB<sub>2</sub></b>;</li> <li>• The UNESCO's Outstanding Universal Value<sub>3</sub>;</li> <li>• The Conservation Management Plan<sub>4</sub>; and</li> <li>• The Guideline of Conservation of Heritage Building<sub>5</sub>.</li> </ul>	<p><b>1: NHA - D<sub>1</sub></b> <b>2: CVHB (1-8)</b></p> <p><b>3: OUV - D<sub>2</sub></b> <b>4: CMP - D<sub>4</sub></b></p> <p><b>5: GCHB - D<sub>3</sub></b></p>

**Table 8 (continued):** Content Analysis for the Expert Interviews for Research Objective 2.

<b>RO<sub>2</sub> : UNDERSTANDING THE CURRENT PRACTICE OF CONSERVING CVHB IN MALAYSIA</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Operational: R<sub>5</sub></b>	Our unit of conservation is responsible for the preservation and conservation work, planning and implementation work of conservation of Cultural Values of Heritage Building. All Cultural Values are used in conserving heritage buildings according to the National Heritage Act, OUV, CMP, and the Conservation Guidelines. The Conservation Guidelines and CMP are used in order to prolong the life-span of the heritage buildings and to maintain the good condition of the buildings.	<ul style="list-style-type: none"> <li>- The Conservation Unit for conservation of the Malacca Museum Corporation is responsible for the preservation and conservation work, planning, and implementation of the plans for heritage buildings.</li> <li>- All <b>CVHB<sub>1</sub></b> are used according to:-               <ul style="list-style-type: none"> <li>• The National Heritage Act<sub>2</sub>;</li> <li>• The OUV<sub>3</sub>;</li> <li>• The CMP<sub>4</sub>; and</li> <li>• The Conservation Guidelines for Heritage Building<sub>5</sub>.</li> </ul> </li> </ul>	<p>1 : <b>CVHB</b> (1-8)</p> <p>2 : <b>NHA – D<sub>1</sub></b></p> <p>3 : <b>OUV – D<sub>2</sub></b></p> <p>4 : <b>CMP – D<sub>4</sub></b></p> <p>5: <b>GCHB – D<sub>3</sub></b></p>
<b>Operational: R<sub>6</sub></b>	<p>I am responsible for conservation work and exhibition shows for the museum.</p> <p>Actually, all Cultural Values used in conserving a Heritage Building in Malacca. We used the Act, OUV, CMP and the Conservation Guideline for the conservation work in Malacca.</p>	<ul style="list-style-type: none"> <li>- All <b>CVHB<sub>1</sub></b> are used in conserving a heritage building in Malacca along with:-               <ul style="list-style-type: none"> <li>• The National Heritage Act<sub>2</sub>;</li> <li>• The OUV<sub>3</sub>;</li> <li>• The CMP<sub>4</sub>; and</li> <li>• The Guidelines for Conservation of Heritage Building<sub>5</sub>.</li> </ul> </li> </ul>	<p>1 : <b>CVHB</b> (1-8)</p> <p>2 : <b>NHA – D<sub>1</sub></b></p> <p>3 : <b>OUV – D<sub>2</sub></b></p> <p>4 : <b>CMP – D<sub>4</sub></b></p> <p>5: <b>GCHB – D<sub>3</sub></b></p>

**Table 8 (continued):** Content Analysis for the Expert Interviews for Research Objective 2.

<b>RO<sub>2</sub> : UNDERSTANDING THE CURRENT PRACTICE OF CONSERVING CVHB IN MALAYSIA</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Operational: R<sub>7</sub></b>	I think I am agreeing with her.	<ul style="list-style-type: none"> <li>- <b>R<sub>7</sub></b> Expert Views on the current practice of conservation of <b>CVHB</b> are similar to <b>R<sub>6</sub></b>.</li> <li>- All <b>CVHB<sub>1</sub></b> are used in conserving a heritage building in Malacca along with:-               <ul style="list-style-type: none"> <li>• The National Heritage Act<sub>2</sub>;</li> <li>• The OUV<sub>3</sub>;</li> <li>• The CMP<sub>4</sub>; and</li> <li>• The Guidelines for Conservation of Heritage Buildings<sub>5</sub>.</li> </ul> </li> </ul>	<p><b>1 : CVHB (1-8)</b></p> <p><b>2 : NHA – D<sub>1</sub></b></p> <p><b>3 : OUV – D<sub>2</sub></b></p> <p><b>4 : CMP – D<sub>4</sub></b></p> <p><b>5: GCHB – D<sub>3</sub></b></p>
<b>Operational: R<sub>8</sub></b>	I am the execution part. All the earlier process of evaluating the Cultural Values of Heritage Buildings have been done by the Cultural Heritage Department.	<ul style="list-style-type: none"> <li>- <b>R<sub>8</sub></b> does not provide any Expert Views on the current practice of conserving <b>CVHB</b> in Malaysia.</li> </ul>	-

#### 5.4 Summarisation of Descriptive Codes from Expert Interviews for RO<sub>2</sub>

Table 8 in Section 5.3 indicates the responses from the Expert Interviews for RO<sub>2</sub>. Therefore for the purpose of mapping the research framework, this section has summarised the Descriptive Codes from Expert Interviews for RO<sub>2</sub>. Table 9 indicates the display for the summarisation of Descriptive Codes for RO<sub>2</sub>.

**Table 9:** Summarisation of Descriptive Codes for RO<sub>2</sub>.

Respondent Identifier	Descriptive Codes				
	CVHB (1-8)	NHA - D <sub>1</sub>	OUV - D <sub>2</sub>	GCHB - D <sub>3</sub>	CMP - D <sub>4</sub>
R <sub>1</sub>	X	X	X	X	X
R <sub>2</sub>	X	X	X	X	X
R <sub>3</sub>	X	X	X	X	X
R <sub>4</sub>	X	X	X	X	X
R <sub>5</sub>	X	X	X	X	X
R <sub>6</sub>	X	X	X	X	X
R <sub>7</sub>	X	X	X	X	X
R <sub>8</sub>	-	-	-	-	-
<b>Total</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>	<b>7</b>

Referring to Table 9, almost all the respondents (7 out of 8) have that stated all eight classifications of CVHB which are social, economic, political, historic, aesthetical, scientific, age, and ecological have been used in the current conservation of heritage buildings in Malaysia. This is in accordance with four vital documents which are: D<sub>1</sub> – The National Heritage Act of Malaysia (NHA); D<sub>2</sub> – Outstanding Universal Values (OUV); D<sub>3</sub> – Guidelines for Conservation of Heritage Building in Malaysia (GCHB); and D<sub>4</sub> – Conservation Management Plan of Malacca (CMP).

Therefore, the next section of this thesis will verify the existence all classifications of CVHB in four vital documents mentioned by the respondents. However, only R<sub>8</sub> does not provide any Expert Views on the current conservation practice because the respondent stated that all evaluating processes of conservation have been done at the strategic level, and the respondent was only responsible for the operation and maintenance of heritage buildings.

## 5.5 Document Reviews

This section will be reviewing the following documents; The National Heritage Act of Malaysia (**NHA**) or **D<sub>1</sub>**; The Outstanding Universal Values (**OUV**) by UNESCO or **D<sub>2</sub>**; The Guidelines for Conservation of Heritage Building in Malaysia (**GCHB**) or **D<sub>3</sub>**; and The Conservation Management Plan of Malacca (**CMP**) or **D<sub>4</sub>**. These documents (**D<sub>1</sub>+D<sub>2</sub>+ D<sub>3</sub> + D<sub>4</sub>**) will validate and verify the current practice of **CVHB** mentioned by the respondents in the Expert Interviews.

### 5.5.1 The National Heritage Act of Malaysia (NHA) - D<sub>1</sub>

The National Heritage Act of Malaysia 2005 (**NHA**) is an Act to provide the conservation and preservation of National Heritage; Natural Heritage, Tangible and Intangible Cultural Heritage, Underwater Cultural Heritage, Treasure Trove and for related matters. It received Royal Assent on 30<sup>th</sup> December 2005 and was published and gazetted on 31<sup>st</sup> December 2005. **NHA** came into effect on 1 March 2006.

However, for the purpose of this research, only selected parts of the **NHA** which focuses on the conservation of heritage buildings and the **CVHB** will be reviewed. Similar to **Table 8** in **Section 5.3** of the responses from the Expert Interviews, **Table 10** applies the Content Analysis that indicates the “Documents Transcript”; “Interpretation of the Underlying Meaning; and the “Descriptive Code”.

### 5.5.2 The Outstanding Universal Values (OUV) - D<sub>2</sub>

The Outstanding Universal Values or **OUV** is the central idea of World Heritage Convention Concerning the Protection of the World’s Cultural and Natural Heritage (1972) which was granted to establish an effective system of collective protection of the world’s cultural and natural heritage. **OUV** was established by the UNESCO Expert meeting in 1976 who discussed the concept of **OUV**. It was then agreed at a convention which took place in Paris on 27<sup>th</sup> June to 1<sup>st</sup> July 1977 and produced the first definition of **OUV**.

In this research, the definition of **OUV** and its criteria for determining **OUV** will be reviewed. **Table 11** shows the Document Reviews for **OUV** or **D<sub>2</sub>** that applies a similar method of analysis which is the Content Analysis.



**Table 10:** Content Analysis for Document 1 - The National Heritage Act.

D <sub>1</sub> – NHA		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p style="text-align: center;"><b>LAWS OF MALAYSIA</b></p> <p style="text-align: center;"><b>Act 645</b></p> <p style="text-align: center;"><b>NATIONAL HERITAGE ACT 2005</b></p> <p>An Act to provide for the conservation and preservation of national heritage, natural heritage, tangible and intangible cultural heritage, underwater cultural heritage, treasure trove and related matters.</p> <p style="text-align: right;"><i>[1 March 2006; P.U. (B) 53/2006]</i></p> <p><b>ENACTED</b> by the Parliament of Malaysia as follows:</p> <p style="text-align: center;">PART I</p> <p style="text-align: center;">PRELIMINARY</p> <p><b>Short title and commencement</b></p> <p>1. (1) This Act may be cited as the National Heritage Act 2005.</p>	<p>- This Act elucidates the characteristics of current practice of <b>CVHB</b> in Malaysia.</p>	

*Source:* Adapted from the National Heritage Act Malaysia (2005).

**Table 10 (continued):** Content Analysis for Document 1 - The National Heritage Act.

D <sub>1</sub> – NHA		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>(2) This Act comes into operation on a date to be appointed by the Minister by notification in the Gazette; and the Minister may appoint different dates for the coming into operation of this Act to different parts of Malaysia.</p> <p><b>Interpretation</b></p> <p>In this Act, unless the context otherwise requires:-</p> <p>“building” means a building or groups separate or connected buildings which, because of their architecture, their homogeneity or their place in the landscape, are of outstanding universal value from the point of view of history, art or science;</p> <p>“heritage item” means any national heritage, heritage site, heritage object or underwater cultural heritage listed in the Register;</p>	<p>- It encompasses the application of the Outstanding Universal Values (OUV)<sub>1</sub> that focuses on historic<sub>2</sub>, aesthetic<sub>3</sub>, and scientific value<sub>4</sub>.</p>	<p>1: OUV - D<sub>2</sub>                  2: HISTORIC - CVHB<sub>4</sub>                  3: AESTHETIC - CVHB<sub>5</sub>                  4: SCIENTIFIC - CVHB<sub>6</sub></p>

*Source:* Adapted from the National Heritage Act Malaysia (2005).

**Table 10 (continued):** Content Analysis for Document 1 - The National Heritage Act.

D <sub>1</sub> - NHA		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>“conservation management plan” means a plan for conservation prepared under section 46;</p>	<ul style="list-style-type: none"> <li>- Conservation Management Plan<sub>5</sub> applied: -               <ul style="list-style-type: none"> <li>• As guidance for the promotion of conservation, preservation, rehabilitation, restoration, and reconstruction in Malacca WHC;</li> <li>• As an outline of the strategies and guidance that enable and allow changes to take place within a framework of conservation and protection; and</li> <li>• Serving as a long term comprehensive framework to guide heritage in WHC Malacca.</li> </ul> </li> </ul>	<p><b>5 : CMP - D<sub>3</sub></b></p>

*Source:* Adapted from the National Heritage Act Malaysia (2005).

**Table 10 (continued):** Content Analysis for Document 1 - The National Heritage Act.

D <sub>1</sub> - NHA		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>“conservation” includes preservation, restoration, reconstruction, rehabilitation, and adaptation or any combination;</p> <p>“preservation” means aiming to halt further deterioration, decay or a state of dilapidation and providing structural safety and well-being but does not contemplate significant rebuilding and includes: –</p> <p>(a) techniques of arresting or slowing the process of deterioration, decay or state of dilapidation of an item or structure;</p> <p>(b) improvement of structural conditions to make a structure safe, habitable, or otherwise useful; and</p> <p>(c) normal maintenance and minor repairs that do not change or adversely affect the fabric or historic appearance of a structure;</p>	<ul style="list-style-type: none"> <li>- The process of conservation<sub>6</sub> according this Act includes:-                             <ul style="list-style-type: none"> <li>• preservation;</li> <li>• restoration;</li> <li>• reconstruction;</li> <li>• rehabilitation; and</li> <li>• adaptation or any combination of the aspects mentioned.</li> </ul> </li> <li>- The process of preservation includes use of technology<sub>7</sub> aiming:-                             <ul style="list-style-type: none"> <li>• to halt further deterioration;</li> <li>• decay; or</li> <li>• a state of dilapidation;</li> <li>• and providing structural safety and well-being of heritage buildings;</li> <li>• which includes the techniques of preservation;</li> <li>• improving the structure of the heritage building; and</li> <li>• operation and maintenance</li> </ul> </li> </ul>	<p><b>6 : PROCESS - FM<sub>3</sub></b></p> <p><b>7 : TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the National Heritage Act Malaysia (2005).

**Table 10 (continued):** Content Analysis for Document 1 - The National Heritage Act.

D <sub>1</sub> - NHA		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>“restoration” means the process of accurately recovering the form and details of a structure or part of a structure and its setting, as it appeared at some period in time, by removing the latter work and replacing the missing original work, and includes:–</p> <p>(a) full restoration which involves both the exterior and interior;</p> <p>(b) partial restoration which involves the exterior, interior, or any partial combination and is adopted when only parts of a structure are important in illustrating cultural values at its level of historic significance, or contributes to the values for which the area was designated; and</p> <p>(c) adaptive restoration which involves all or a portion of the exterior restoration, with the interior adapted to a modern functional use.</p>	<p>- The process of restoration involves technology<sub>8</sub> in:-</p> <ul style="list-style-type: none"> <li>• recovering the form and details of a structure or part of a heritage building;</li> <li>• removing the latter work and replacing the missing original work;</li> <li>• full restoration that involves both the exterior and interior of the heritage building;</li> <li>• partial restoration which involves the exterior, interior, or;</li> <li>• any partial combination that illustrates the historic<sub>9</sub> value;</li> <li>• adaptive restoration that includes the exterior and interior being adapted to a modern functional use.</li> </ul>	<p><b>8 : TECHNOLOGY - FM<sub>4</sub></b></p> <p><b>9 : HISTORIC - CVHB<sub>4</sub></b></p>

*Source:* Adapted from the National Heritage Act Malaysia (2005).

**Table 10 (continued):** Content Analysis for Document 1 - The National Heritage Act.

D <sub>1</sub> - NHA		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>“reconstruction” means the process of accurately reproducing by new construction, the form and detail of a vanished structure, or a part of it, as it appeared at some period in time and includes full or partial reconstruction.</p> <p>“rehabilitation” means the process of returning a property to a state of utility through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic architecture.</p>	<ul style="list-style-type: none"> <li>- The technology<sub>10</sub> involved in reconstruction includes:-               <ul style="list-style-type: none"> <li>• accurately reproducing a new construction of a heritage building;</li> <li>• producing in detail the vanished structure of a heritage building; or</li> <li>• part of it.</li> </ul> </li> <li>- The rehabilitation includes using the technology<sub>11</sub> to:-               <ul style="list-style-type: none"> <li>• return a heritage building to a state of utility through repair or alteration to a contemporary use; and</li> <li>• preserving the historic<sub>12</sub> values of the heritage building.</li> </ul> </li> </ul>	<p><b>10 : TECHNOLOGY - FM<sub>4</sub></b></p> <p><b>11 : TECHNOLOGY - FM<sub>4</sub></b></p> <p><b>12 : HISTORIC - CVHB<sub>4</sub></b></p>

*Source:* Adapted from the National Heritage Act Malaysia (2005).

**Table 10 (continued):** Content Analysis for Document 1 - The National Heritage Act.

D <sub>1</sub> - NHA		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>“heritage site” means a site designated as a heritage site under section 24;</p> <p>“cultural heritage significance” means cultural heritage having aesthetic, archaeological, architectural, cultural, historical, scientific, social, spiritual, linguistic or technology value;</p> <p>“Commissioner” means the Commissioner of Heritage appointed under Section 4;</p>	<ul style="list-style-type: none"> <li>- A heritage site in this Act includes the heritage buildings and its surrounding area<sup>a12</sup>.</li> <li>- The <b>CVHB</b> in this Act includes:               <ul style="list-style-type: none"> <li>• aesthetic<sup>13</sup>;</li> <li>• historic<sup>14</sup>;</li> <li>• scientific<sup>15</sup>;</li> <li>• social<sup>16</sup>; and</li> <li>• ecological (spiritual)<sup>17</sup>.</li> </ul> </li> <li>- Commissioner in this Act means the Commissioner of Heritage of the Department of Cultural Heritage Malaysia<sup>18</sup>.</li> </ul>	<p><b>12 : PLACE - FM<sub>2</sub></b></p> <p><b>13 : AESTHETIC - CVHB<sub>5</sub></b></p> <p><b>14 : HISTORIC - CVHB<sub>4</sub></b></p> <p><b>15 : SCIENTIFIC - CVHB<sub>6</sub></b></p> <p><b>16 : SOCIAL - CVHB<sub>1</sub></b></p> <p><b>17 : ECOLOGICAL - CVHB<sub>8</sub></b></p> <p><b>18 : PEOPLE - FM<sub>1</sub></b></p>

*Source:* Adapted from the National Heritage Act Malaysia (2005)

**Table 11:** Content Analysis for Document 2 - Outstanding Universal Value.

D <sub>2</sub> - OUV		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>OUTSTANDING UNIVERSAL VALUE (OUV)</b></p> <p>The meaning follows the common sense interpretation of the words:</p> <p><b>Outstanding:</b> For properties of Outstanding Universal Value they should be exceptional or superlative and should be at the most remarkable places on Earth.</p> <p><b>Universal</b> : Properties need to be outstanding from a global perspective. World Heritage does not aim to recognise properties that are remarkable from solely a national or regional perspective.</p> <p><b>Value</b> : What makes a property outstanding and universal is its “value”, or the natural and/ or cultural worth of a property. This value is determined based on standards and processes established under The World Heritage Convention.</p>	<ul style="list-style-type: none"> <li>- This document has defined the following words: -               <ul style="list-style-type: none"> <li>• Outstanding as a heritage building is exceptional, superlative and remarkable;</li> <li>• Universal as a heritage building is outstanding from a global view; and</li> <li>• Value of a heritage building is determined based on the standards and processes by The World Heritage Convention.</li> </ul> </li> </ul>	

*Source:* Adapted from UNESCO - Outstanding Universal Value (2005).



**Table 11 (continued):** Content Analysis for Document 2 - Outstanding Universal Value.

D <sub>2</sub> - OUV		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><i>“Outstanding Universal Value will be recognised when a monument, group of buildings or site which is nominated for inclusion in the World Heritage List will be considered to be of Outstanding Universal Value for the purposes of the Convention when the Committee finds that it meets one or more of the following criteria <u>and</u> the test of authenticity”.</i></p> <p>Each nominated property should therefore:</p> <p>(a) (i) Represent a unique artistic or aesthetic achievement, a masterpiece of human creative genius;</p> <p style="text-align: center;">OR</p> <p>(ii) Have exerted great influence, over a span of time or within a cultural area of the world, on developments in architecture, monumental arts or town-planning and landscaping.</p> <p style="text-align: center;">OR</p> <p>(iii) Bear a unique or at least exceptional testimony to a civilisation which has disappeared;</p> <p style="text-align: center;">OR</p>	<ul style="list-style-type: none"> <li>- A heritage building will be considered to be OUV when it meets the conditions of integrity and authenticity.</li> <li>- Each nominated heritage building should:-               <ul style="list-style-type: none"> <li>• represent aesthetic<sub>1</sub> value; OR</li> <li>• have a great influence in architectural, monumental arts, town-planning, and landscaping; OR</li> <li>• uniqueness; OR</li> <li>• illustrates a significant historic value<sub>2</sub>; OR</li> <li>• indicates the outstanding example of a traditional human settlement culture; OR</li> <li>• is associated with important events that are significant with OUV; AND</li> <li>• meet the test of authenticity in design, materials, workmanship or setting of a heritage building.</li> </ul> </li> </ul>	<p><b>1: AESTHETIC - CVHB<sub>5</sub></b></p> <p><b>2: HISTORIC - CVHB<sub>4</sub></b></p>

Source: Adapted from UNESCO – Outstanding Universal Value (2005).

**Table 11 (continued):** Content Analysis for Document 2 - Outstanding Universal Value.

<b>D<sub>2</sub>- OUV</b>		
<b>Document Transcript</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<p>(iv) Bear an outstanding example of a type of structure, which illustrates a significant stage in history;</p> <p style="text-align: center;">OR</p> <p>(v) Be an outstanding example of a traditional human settlement, which is representative of a culture and which has become vulnerable under the impact of irreversible change;</p> <p style="text-align: center;">OR</p> <p>(vi) Be directly or tangibly associated with events or with ideas or beliefs of outstanding universal significance (the Committee considered that this criterion should justify inclusion in the list only in exceptional circumstances or in conjunction with other criteria).</p> <p style="text-align: center;">AND</p> <p>(b) Meet the test of authenticity in design, materials, workmanship or setting (the Committee stressed that reconstruction is only acceptable if it is carried out on the basis of complete and detailed documentation on the original and to no extent on conjecture).</p>		

*Source:* Adapted from UNESCO – Outstanding Universal Value (2005).

**Table 11 (continued):** Content Analysis for Document 2 - Outstanding Universal Value.

<b>D<sub>2</sub>- OUV</b>		
<b>Document Transcript</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<p>In 2005 the Cultural Criteria of the Outstanding Universal Value was established. In order to be eligible for inscription on the list, a property needs to meet one of the following criteria, that is to:</p> <ul style="list-style-type: none"> <li>(a) Represent a masterpiece of human creative genius;</li> <li>(b) Exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design;</li> <li>(c) Bear a unique or at least exceptional testimony to a cultural tradition or to a civilisation which is living or which has disappeared;</li> <li>(d) Be an outstanding example of a type of building, architectural, or technological ensemble or landscape which illustrates (a) significant stage(s) in human history;</li> <li>(e) Be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change;</li> </ul>	<ul style="list-style-type: none"> <li>- In 2005, Cultural Criteria OUV of heritage building was established. There are as follows:- <ul style="list-style-type: none"> <li>• It represents a human-made masterpiece;</li> <li>• Illustrates the human values that have a great influence in architectural, monumental arts, town-planning, and landscaping;</li> <li>• Uniqueness of the heritage building;</li> <li>• Outstanding example of type of a heritage building, architectural, technology, landscape that illustrates human historic value<sub>3</sub>;</li> <li>• Indicates an outstanding example of a traditional human settlement culture, land use, or sea-use;</li> <li>• Associated with important events that are artistic and significant with OUV;</li> <li>• Indicates the aesthetic value<sub>4</sub>;</li> </ul> </li> </ul>	<p><b>3: HISTORIC - CVHB<sub>4</sub></b></p> <p><b>4: AESTHETIC - CVHB<sub>5</sub></b></p>

*Source:* Adapted from UNESCO – Outstanding Universal Value (2005).

**Table 11 (continued):** Content Analysis for Document 2 - Outstanding Universal Value.

D <sub>2</sub> - OUV		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>(f) Be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of Outstanding Universal Significance (The Committee considers that this criterion should preferably be used in conjunction with other criteria).</p> <p>(g) Contain superlative natural phenomena or areas of exceptional natural beauty and aesthetic importance.</p> <p>(h) Be outstanding examples representing major stages of earth’s history, including the record of life, significant on-going geological processes in the development of land-forms, or significant geomorphological processes in the development of land-forms, or significant geomorphological or physiographic features;</p> <p>(i) Be outstanding examples representing significant on-going ecological and biological processes in the evolution and development of terrestrial, fresh water, coastal, and marine ecosystems and communities of plants and animals;</p>	<ul style="list-style-type: none"> <li>• Outstanding examples that represent earth’s history of geological processes, development of land-forms, or physiographic features;</li> <li>• Illustrates outstanding aspects of ecological and biological development;</li> <li>• Consists of important and significant natural habitats for in-situ conservation of biological diversity.</li> </ul>	

*Source:* Adapted from UNESCO – Outstanding Universal Value (2005).

**Table 11 (continued):** Content Analysis for Document 2 - Outstanding Universal Value.

<b>D<sub>2</sub>- OUV</b>		
<b>Document Transcript</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
(j) Contain the most important and significant natural habitats for in-situ conservation of biological diversity, including those containing threatened species of Outstanding Universal Value from the point of view of science or conservation.		

*Source:* Adapted from UNESCO – Outstanding Universal Value (2005).

### 5.5.3 The Guidelines for Conservation of Heritage Buildings in Malaysia (GCHB) - D<sub>3</sub>

The Guidelines for Conservation of Heritage Buildings (GCHB) are provided as a guide for the implementation of heritage conservation in Malaysia. The preparation of GCHB refers to NHA; International Conservation Guidelines of UNESCO; Charter Burra Australia 1999 (Charter for the Conservation of Places of Cultural Significance); and the Charter under the International Council on Monuments and Sites (ICOMOS). With the availability of this GCHB, all work related activities and the conservation of heritage buildings must comply with the principles and procedures contained in the GCHB and approval of the Department of National Heritage.

However, for the purpose of this research, only the selected part of the GCHB which focuses on the CVHB will be analysed. Table 12 indicates the Document Reviews for GCHB or D<sub>3</sub>. In addition, similar to Table 10 in Section 5.5.1 and Table 11 in Section 5.5.2, it will consist of three columns which are “Documents Transcript”; “Interpretation of the Underlying Meaning”; and “the Descriptive Code”.

### 5.5.4 Conservation Management Plan of Malacca (CMP) - D<sub>4</sub>

A Conservation Management Plan is defined by ICOMOS as a document which sets out the significance of a heritage asset, and how that significance will be retained in any future use, management, alteration or repair. The Conservation Management Plan for Malacca or CMP was first identified in 1979 in Malaysia.

In 1988, the state government of Malacca organised a seminar on the heritage of Malacca. The state government decided to designate the St Paul’s Hill as a heritage zone after the seminar. The heritage buildings within the zone include the *Stadhuys* or Red Building, Christ Church, and the ruined *A Famosa Fort* which has been restored and conserved. These properties are included in the Heritage List, which comprises of two major protected areas within the conservation zone of the historic city of Malacca, and is demarcated by the Malacca River.

Similar to GCHB, only a particular section or parts of the CMP will be analysed. Table 13 indicates the Content Analysis for CMP or D<sub>4</sub>.

**Table 12:** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>The content guidelines are divided into four divisions:</p> <p><b>PART I : INTRODUCTION</b></p> <p>The first part are the interpretative guidelines and heritage purposes and matters related to heritage sites and conservation concepts and approaches. The conservation approach in this guideline refers to <b>PART I</b>, Section 2 of the National Heritage Act 2005 (Act 645).</p> <p><b>1.1 What is Heritage</b></p> <p>Heritage is generally defined as something of value that is passed from one generation to the next generation. It includes customs, culture, area, buildings, archives, and print materials including books and writing paper. Cultural Heritage is a valuable asset because it has aesthetic, archaeological, architectural, cultural, historical, scientific, social, spiritual, linguistic, or technological.</p>	<ul style="list-style-type: none"> <li>- This Guideline elucidates the characteristics of current practice of <b>CVHB</b> in Malaysia.</li> </ul> <p><b>Part 1: Introduction</b></p> <ul style="list-style-type: none"> <li>- It defines heritage (building) as something of value that is passed from one generation to the next generation.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>In particular, UNESCO defined cultural heritage to include the following aspects:</p> <ul style="list-style-type: none"> <li>• <b>Monuments:</b> Architectural works, sculptures, and monuments of paintings, elements or structures of archaeology, writing and carving on walls, residence in caves and other features that reflect the high value of history, art, and value (universal value).</li> <li>• <b>A group of buildings:</b> A group of buildings clustered or isolated, which have value in terms of architecture, homogeneity or layouts (setting) in a landscape that reflects the high value of history, art, and science.</li> <li>• <b>Sites:</b> Works of man or nature or a combination of both, including archaeological sites which reflect the high value of historical, aesthetic, ethnological or anthropological.</li> </ul>	<ul style="list-style-type: none"> <li>- The characteristics of a heritage building according to UNESCO are defined.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).



**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>1.2 Interpretation</b></p> <p>In the National Heritage Act 2005 (Act 645), Part I provides the interpretation and meaning of natural heritage, natural heritage, cultural heritage, tangible and intangible, underwater cultural heritage, treasure trove and interpretation of tangible heritage related matters.</p> <p><b>1.2.1 Cultural Heritage</b></p> <p>Including tangible or intangible property, structures or artefacts and can include things, objects, items, artefacts, structure formation, performance, dance, singing, music that is pertinent to the Malaysian way of life, in terms of historical or contemporary, on land, or underwater but excludes natural heritage.</p>	<ul style="list-style-type: none"> <li>- A definition of Cultural Heritage is provided.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>1.2.2 Tangible Cultural Heritage</b></p> <p>Includes areas, monuments, and buildings.</p> <p><b>1.2.3 Intangible Cultural Heritage</b></p> <p>Includes any form of expression, language, utterances, sayings, songs produced by musical notes, audible lyrics, folk songs, oral tradition, poetry, music, dance as produced on an art stage, theatre, alteration sound and music, martial arts, which have existed or exist in relation to the heritage of Malaysia or any part of Malaysia or in connection with the heritage of Malaysian society, rituals and beliefs, traditional medicine, traditional cooking, sports and traditional games.</p>	<ul style="list-style-type: none"> <li>- A heritage building is a tangible property of cultural heritage.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>1.2.4 Significance of Cultural Heritage</b></p> <p>Cultural heritage that has aesthetic, archaeological, architectural, cultural, historical, scientific, social, spiritual, linguistic or technological.</p> <p><b>1.2.5 National Heritage</b></p> <p>Any heritage site, heritage object, underwater cultural heritage or any living person declared as National Heritage under Section 67 are under consideration:</p> <ol style="list-style-type: none"> <li>a) The importance of history, an association with or relationship to the history of Malaysia;</li> <li>b) Characteristics of aesthetic design;</li> <li>c) Renewal or scientific or technical achievement ; Interaction, either social or cultural;</li> </ol>	<ul style="list-style-type: none"> <li>- A heritage building illuminates aesthetic<sub>1</sub>, historic<sub>2</sub>, scientific<sub>3</sub>, and social values<sub>4</sub>.</li>   <li>- A heritage building in Malaysia is endorsed as National Heritage under Section 67.</li> </ul>	<p><b>1 : AESTHETIC - CVHB<sub>5</sub></b>  <b>2 : HISTORIC - CVHB<sub>4</sub></b>  <b>3 : SCIENTIFIC – CVHB<sub>6</sub></b>  <b>4 : SOCIAL – CVHB<sub>1</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<ul style="list-style-type: none"> <li>d) The potential to educate, explain or provide further scientific investigation in relation to the cultural heritage of Malaysia;</li> <li>e) Interest in exhibiting a richness, diversity or unusual integration of features;</li> <li>f) Applicability of rare or unique natural heritage, cultural heritage, tangible or intangible cultural heritage under water;</li> <li>g) Description of a site or object form as part of a class or type or site or object; and</li> <li>h) Any other matter relating to the determination of cultural heritage significance.</li> </ul>		

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>1.2.6 Monuments</b></p> <p>Works of architecture, sculpture and paintings work, making monuments, elements of structures of an archaeological nature, inscriptions, cave dwellings and combinations of features, which are of Outstanding Universal Value from a Historical, Artistic, or Scientific perspective.</p> <p><b>1.2.7 Ancient Objects</b></p> <ul style="list-style-type: none"> <li>(a) Any movable object which is reasonably believed to be at least fifty years old;</li> <li>(b) Any part of any object which has at any later date been added or built or restored; and</li> <li>(c) Any human, plant or animal that is or is reasonably believed to be at least one hundred years old.</li> </ul>		

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>1.2.8 Buildings</b></p> <p>A building or a group of separated or connected buildings which have the architecture, their homogeneity or their place in the landscape, and are of Outstanding Universal Value from a historical, artistic, or scientific perspective.</p> <p><b>1.2.9 Site</b></p> <p>Including any area, place, zone, natural heritage, monuments or buildings attached to land, archaeological reserves and any land with buildings, gardens, trees, or archaeological reserves.</p>	<ul style="list-style-type: none"> <li>- A heritage building is the building itself or a group of separated or connected buildings that have the architecture, homogeneity, landscape, OUV<sup>5</sup>, and have historic<sup>6</sup>, artistic/aesthetic<sup>7</sup>, or scientific values<sup>8</sup>.</li>   <li>- A heritage building includes the site surrounding the place<sup>9</sup>.</li> </ul>	<p><b>5 : OUV - D<sub>2</sub></b>  <b>6 : HISTORIC - CVHB<sub>4</sub></b>  <b>7 : AESTHETIC - CVHB<sub>5</sub></b>  <b>8 : SCIENTIFIC - CVHB<sub>6</sub></b></p> <p><b>9 : PLACE - FM<sub>2</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>1.2.10 Area</b></p> <p>Including works of man or the combined work of nature and man, and areas including archaeological sites which are of Outstanding Universal Value from a historical, aesthetic, ethnological or anthropological perspective.</p> <p><b>1.3 The Concept of Conservation</b></p> <p>The concept of heritage conservation that is universally accepted and practised is “Authenticity in Heritage Conservation”. Authenticity can be considered as an aesthetic aspect while the process is the ethics to restore it. In the context of conservation of heritage buildings, the most important aspect is the ethics rather than aesthetics. Thus in conservation, beauty is not the measurement of restoring the building to the original.</p>	<ul style="list-style-type: none"> <li>- A heritage building consists of an area which includes human-made work or the combination of human-made and nature on a site with OUV<sub>10</sub>, historic<sub>11</sub>, and aesthetic values<sub>12</sub>.</li>   <li>- The concept of conservation<sub>13</sub> is:-               <ul style="list-style-type: none"> <li>• universally accepted;</li> <li>• a practice of authenticity and aesthetics<sub>14</sub>; and</li> <li>• restoring the original structure of a heritage building.</li> </ul> </li> </ul>	<p><b>10 : OUV - D<sub>2</sub></b>  <b>11 : HISTORIC - CVHB<sub>4</sub></b>  <b>12 : AESTHETIC - CVHB<sub>5</sub></b></p> <p><b>13 : PROCESS - FM<sub>3</sub></b></p> <p><b>14 : AESTHETIC - CVHB<sub>5</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>1.3.1 Building Material</b></p> <p>The originality of the material is the most important aspect in conservation. Building materials are considered important because they reflect the value of history. It contains evidence about the knowledge that has been lost and composite ideas for an ideal building in the past. Many heritage building materials are derived from natural minerals such as wood, stone, and lime. Sustaining the material of a building is not only for historical and cultural value but also to reuse in terms of being more compatible with the original features in appearance.</p>	<ul style="list-style-type: none"> <li>- A building material is vital in conservation because:-               <ul style="list-style-type: none"> <li>• it reflects the historic values<sup>15</sup>; and</li> <li>• evidence of knowledge about ideas and ideal heritage building in the past.</li> </ul> </li> <li>- The building materials are derived from natural minerals such as wood, stone, and lime.</li> <li>- The technology<sup>16</sup> in sustaining the material of a heritage building is to reuse the same material as the original which is more compatible.</li> </ul>	<p><b><sup>15</sup>: HISTORIC - CVHB<sub>4</sub></b></p> <p><b><sup>16</sup>: TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).



**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>1.3.2 Design</b></p> <p>Every old building has a history of building development. Building which remain in the present have gone through many changes to the building according to the era and tenants living in it. In this situation, the concept of authenticity will become increasingly difficult when determining the actual design while ensuring the authenticity and choosing what era buildings should be preserved in so these issues need to be examined carefully. For conservation design, it is necessary to study the structure of the original building, architectural style, and building relationships with the environment.</p>	<ul style="list-style-type: none"> <li>- The design of a heritage building has its own historic value<sup>17</sup> in the past.</li> <li>- In conservation design, it is necessary to:-               <ul style="list-style-type: none"> <li>• study the structure of the original design of a heritage building;</li> <li>• architectural style; and</li> <li>• a heritage building’s relationship with the environment or the ecological value<sup>18</sup>.</li> </ul> </li> </ul>	<p><b>17: HISTORIC - CVHB<sub>4</sub></b></p> <p><b>18: ECOLOGICAL - CVHB<sub>8</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>1.3.3 Workmanship</b></p> <p>A historic building has its uniqueness in terms of construction or carpentry work of artisans in ancient times. Artistic building work must be maintained and any conservation and repair of damaged materials, engravings, or missing parts must be restored with connectivity to the original material as well according to the traditional techniques of carpentry work. The work of repairing the damage should produce a harmonious shape of the original with a new one.</p> <p><b>1.3.4 Setting</b></p> <p>The setting and the building form, including the layout and interior of the building must be maintained as the original. Originality in design and layout of buildings can be a true representation of the structure of the building and relate historical events experienced. Usually the originality of the form and the setting are obtained after archaeological research.</p>	<ul style="list-style-type: none"> <li>- The technology<sup>19</sup> of workmanship of a heritage building:-               <ul style="list-style-type: none"> <li>• has its uniqueness of construction or carpentry work of an artisan;</li> <li>• traditional techniques; and</li> <li>• the work of replacing a damaged part of a heritage building must be authentic.</li> </ul> </li>   <li>- The setting of a heritage building includes the authentic layout and interior.</li> </ul>	<p><b><sup>19</sup>: TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>1.4 Conservation Approach</b></p> <p>Conservation is a process of care and monitoring of a heritage building from it having been destroyed or restored with systematic planning and management. Conservation works involve the attempt to maintain the original condition of a building, and a land heritage site as the original and this is a process to extend the life of the building so that it can remain for generations to come. An effort to conserve and preserve heritage buildings involves several approaches. The purpose of the approach is in the form of actions to conserve building processes. Conservative approach in the interpretation of the guidelines referred to in the <b>National Heritage Act 2005 (Act 645) of Part 1, Section 2.</b></p>	<p>- Conservation is a process<sup>20</sup> of :-</p> <ul style="list-style-type: none"> <li>• care and monitoring of a heritage building from it having been destroyed; or</li> <li>• restored with a systematic planning and management; and</li> <li>• maintaining the original condition of a building and site for future generations.</li> </ul>	<p><sup>20</sup> : <b>PROCESS - FM<sub>3</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>1.4.1 Protection</b></p> <p>Identification, protection, conservation, restoration, renovation, maintenance, documentation, and revitalisation of things, artefacts, a historic area, the traditional and the environment.</p>	<p>- Protection is a process<sub>21</sub> that involves:-</p> <ul style="list-style-type: none"> <li>• identification;</li> <li>• conservation;</li> <li>• restoration;</li> <li>• renovation;</li> <li>• maintenance;</li> <li>• documentation; and</li> <li>• other associated aspects of conservation.</li> </ul>	<p><b><sub>21</sub> : PROCESS - FM<sub>3</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p style="text-align: center;"><b>1.4.2 Restoration</b></p> <p>The process of accurately recovering the form and details of a structure or part of a structure and its setting, as it appeared at some period in time, by removing the latter work, and replacing the missing work, and includes:</p> <ol style="list-style-type: none"> <li>a) Full restoration which involves both the exterior and interior;</li> <li>b) Partial restoration which involves the exterior, interior, or any partial combination and is adopted when only parts of a structure illustrate cultural values at a level of historic significance, or contribute to the values for which the area was designated; and</li> <li>c) Adaptive restoration which involves all or a portion of the exterior restoration with the interior adapted to modern functional use.</li> </ol>	<p>- Restoration is a process<sup>22</sup> that involves technology<sup>23</sup> in:-</p> <ul style="list-style-type: none"> <li>• recovering the form and details of a structure of part of a heritage building;</li> <li>• removing the latter work and replacing the missing original work;</li> <li>• full restoration that involves both the exterior and interior of the heritage building;</li> <li>• partial restoration which involves the exterior, interior, or;</li> <li>• any partial combination that illustrates the historic<sup>24</sup> value; and</li> <li>• adaptive restoration that includes exterior and interior adapted to modern functional use.</li> </ul>	<p><sup>22</sup> : <b>PROCESS - FM<sub>3</sub></b>  <sup>23</sup> : <b>TECHNOLOGY - FM<sub>4</sub></b></p> <p><sup>24</sup> : <b>HISTORIC - CVHB<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>1.4.3 Reconstruction</b></p> <p>The process of accurately reproducing by new construction, the form and details of a vanished structure, or part of it, as it appeared at some period in time and includes full or partial reconstruction.</p> <p><b>1.4.4 Preservation</b></p> <p>Aiming to halt further deterioration, decay or a state of dilapidation and providing structural safety and wellbeing but does not contemplate significant rebuilding and includes:</p> <p>(a) Techniques of arresting or slowing the process of deterioration, decay or state of dilapidation of an item or structure;</p> <p>(b) Improvement of structural conditions to make a structure safe, habitable, or otherwise useful; and</p> <p>Normal maintenance and minor repairs that do not change or adversely affect the fabric or historic appearance of a structure.</p>	<ul style="list-style-type: none"> <li>- Reconstruction is a process<sup>25</sup> that involves technology<sup>26</sup> and involves:-               <ul style="list-style-type: none"> <li>• accurately reproducing a new construction of a heritage building;</li> <li>• forming the details of a vanished structure of a heritage building; or</li> <li>• part of it.</li> </ul> </li>   <li>- The process<sup>27</sup> of preservation includes the technology<sup>28</sup> aiming:-               <ul style="list-style-type: none"> <li>• to halt further deterioration;</li> <li>• decay; or</li> <li>• a state of dilapidation;</li> <li>• and providing structural safety and well-being of heritage buildings;</li> <li>• which includes the techniques of preservation;</li> <li>• improving the structure of a heritage building; and</li> <li>• operation and maintenance.</li> </ul> </li> </ul>	<p><sup>25</sup> : <b>PROCESS - FM<sub>3</sub></b>  <sup>26</sup> : <b>TECHNOLOGY - FM<sub>4</sub></b></p> <p><sup>27</sup> : <b>PROCESS - FM<sub>3</sub></b>  <sup>28</sup> : <b>TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>1.4.5 Rehabilitation</b></p> <p>The process of returning a property to a state of utility through repair or alteration, which makes possible an efficient contemporary use while preserving those portions and features of the property which are significant to its historic architecture.</p> <p><b>1.4.6 Conservation</b></p> <p>This approach includes preservation, restoration, reconstruction, rehabilitation, and adaptation or any combination.</p>	<ul style="list-style-type: none"> <li>- Rehabilitation is a process<sup>29</sup> that includes the technology<sup>30</sup> of returning a heritage building to a state of utility through repair or alteration to a contemporary use; and preserving the historic<sup>31</sup> values of the heritage building.</li> <li>- The process<sup>32</sup> of conservation includes:-               <ul style="list-style-type: none"> <li>• preservation;</li> <li>• restoration;</li> <li>• reconstruction;</li> <li>• rehabilitation; and</li> <li>• adaptation or any of the combination mentioned.</li> </ul> </li> </ul>	<p><sup>29</sup> : <b>PROCESS - FM<sub>3</sub></b>  <sup>30</sup> : <b>TECHNOLOGY - FM<sub>4</sub></b></p> <p><sup>31</sup> : <b>HISTORIC - CVHB<sub>4</sub></b></p> <p><sup>32</sup> : <b>PROCESS - FM<sub>3</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>PART II : PRINCIPLES AND CONSERVATION PROCESS</b></p> <p>Part two explains the principles and process of conservation. It is an important aspect as well as the core discipline in the work of heritage conservation.</p> <p><b>2.1 Conservation Principles</b></p> <p>All the principles outlined in these guidelines of or instructions will assist the conservator architects and contractors to perform the work, whether at the initial research stage through to disruption of the main building. The main ethics which should be incorporated in conservation work are:</p>	<p><b>Part II: Principles and Conservation Process</b></p> <ul style="list-style-type: none"> <li>- Explains the principles and process of conserving a heritage building.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).



**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<ul style="list-style-type: none"> <li>• The building must be recorded before any work is done;</li> <li>• Any historical evidence found cannot be destroyed, replaced, or removed;</li> <li>• Any interruption of work on the building must be minimised as much as possible;</li> <li>• Any interruption of work must also be done with care and have a sense of respect and sincerity in order to protect the aesthetic, historical, and physical characteristics of old buildings; and</li> <li>• All methods and materials used in conservation work must be recorded.</li> </ul>	<ul style="list-style-type: none"> <li>- Conservation of a heritage building includes:-               <ul style="list-style-type: none"> <li>• the heritage building’s background must be recorded;</li> <li>• any historical evidences cannot be destroyed;</li> <li>• any interruption of the conservation work has to be minimal;</li> <li>• sustaining the aesthetic<sup>33</sup>, historic<sup>34</sup>, and physical characteristics of the heritage building; and</li> <li>• all the technology of methods and materials<sup>35</sup> in the conservation work process<sup>36</sup> must be recorded.</li> </ul> </li> </ul>	<p>33: <b>AESTHETIC - CVHB<sub>5</sub></b>            34: <b>HISTORIC - CVHB<sub>4</sub></b></p> <p>35: <b>TECHNOLOGY - FM<sub>4</sub></b>            36: <b>PROCESS - FM<sub>3</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.1.1 The Importance of Culture</b></p> <p>The importance of culture and other things that affect it in the future is best obtained through the collection and analysis of information before any decision is made. Understanding the importance is the first thing, and then making a decision and finally taking action to manage the place.</p> <p><b>2.1.2 Investigating the Significance of the Conservation Site</b></p> <p>Conservation in any building must be initiated with a professionalism in physical documentation and other evidences, and the existing fabric must be recorded before any disturbance to the site is made. A statement or a written report about the significant site and policies must be provided, verified, and accompanied by supporting evidence.</p>	<ul style="list-style-type: none"> <li>- The importance of conserving a heritage building is best to be obtained through previous analysis before any decision is made.</li>   <li>- Any conservation work must be initiated with recorded documentation and other evidences.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.1.3 Discovery as Records</b></p> <p>Before any interference, the conditions, or characteristics of the building and site must be fully recorded. Any historical evidence discovered cannot be demolished, replaced, or removed.</p> <p><b>2.1.4 Honest and Prudent Approach</b></p> <p>Conservation requires a careful and honest and prudent approach to make changes as needed, but tries to limit changes as much as possible. Changes to be made must not pose any physical threat to original evidence and the changes made must not be based on assumptions.</p> <p><b>2.1.5 Every Case is Different</b></p> <p>Respect the historical features of a building by adopting the analysis on a case-by-case basis as each historic building has different problems.</p>	<ul style="list-style-type: none"> <li>- The discovered evidences of a heritage building cannot be destroyed.</li>   <li>- Conserving a heritage building needs honesty<sup>37</sup> and prudence.</li>   <li>- Each conservation work of a heritage building is different.</li> </ul>	<p><b><sup>37</sup> : PEOPLE - FM<sub>1</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.1.6 Minimal Interruption</b></p> <p>Conservation is an interruption work in terms of the building’s setting and the fabric of the building. Therefore, any interruption to research and the preliminary work must be a minimal. Studies on the site with interruption material including archaeological excavation should only be carried out to obtain the necessary data for conservation decisions, or to obtain important evidence which would otherwise be lost. Interference done must be recaptured. Whatever work interference is done must also be done carefully with and have a sincere respect to the building and to protect the aesthetic, historical, and physical characteristics of the old building.</p>	<ul style="list-style-type: none"> <li>- Conservation work is a minimal interruption to the setting and fabric of the heritage building.</li> <li>- The minimal interruption needs to sustain the aesthetic<sup>38</sup>, historic<sup>39</sup>, and physical characteristics of the heritage building.</li> </ul>	<p><sup>38</sup>: <b>AESTHETIC - CVHB<sub>5</sub></b>  <sup>39</sup>: <b>HISTORIC - CVHB<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.1.7 Correspondence to the Original</b></p> <p>Conservation of the building must meet the compatible principle, with original material and illuminate the harmony in terms of building materials, texture, shape, colour, and structural characteristics.</p> <p><b>2.1.8 Legibility</b></p> <p>Any new replacements for the missing parts of the building should be indistinguishable from the original to avoid any falsification of historical evidence.</p>	<ul style="list-style-type: none"> <li>- Conserving a heritage building must meet the compatible principle of conservation with original material and technology used<sup>40</sup>.</li>   <li>- Any new replacement for the structure of a heritage building must be legible.</li> </ul>	<p><b>40 : TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.1.9 Leveraging Knowledge, Skills, and Technique of Original Construction</b></p> <p>Historical research and investigation of the structure reveals the knowledge of building construction technology in terms of skills and techniques. Conservation should benefit from the entire knowledge and construction disciplines to contribute to the conservation proposal. The materials and traditional techniques are preferred for building conservation. However, in certain circumstances a modern building that offers the benefits of conservation can also apply.</p> <p><b>2.1.10 Documentation</b></p> <p>Documentation pertaining to the conservation of buildings and the site must be kept in a permanent archive and open to the public for reference.</p>	<ul style="list-style-type: none"> <li>- Heritage building conservation leveraging the knowledge, skills, techniques, and technology<sup>41</sup> of the authenticity of building construction.</li>   <li>- The documentation of heritage building conservation must be safeguarded.</li> </ul>	<p><sup>41</sup> : <b>TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.2 Conservation Process</b></p> <p>Conservation is a process of care and monitoring of a historic building from being demolished to being renovated, with systematic planning and management. Conservation works involve the attempt to maintain the original condition of the building and site of a historic land as the original so it can retain its cultural significance. The care process, includes conservation, repair, reconstruction, and reconciliation, and usually more than one of these requirements.</p> <p>The main purpose is to protect the interests of conservation and preservation of the cultural fabric through proper conservation methods so that the damage can be reduced and quality is maintained.</p>	<p>- Conservation is a process<sup>42</sup> of :-</p> <ul style="list-style-type: none"> <li>• care and monitoring of a heritage building from being destroyed; or</li> <li>• restored with systematic planning and management; and</li> <li>• maintaining the original condition of a building and site for future generations.</li> </ul>	<p><sup>42</sup>: <b>PROCESS - FM<sub>3</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

<b>D<sub>3</sub>- GCHB</b>		
<b>Document Transcript</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<p>Conservation work must ensure:-</p> <ul style="list-style-type: none"> <li>• it can be maintained as the original condition;</li> <li>• there are no restrictions for future work, as necessary;</li> <li>• does not covering any eventuality;</li> <li>• maximum retention of existing building materials; and</li> <li>• that if there are additions, they are in harmony in terms of colour, texture, shape, and scale, but must have less clarity than the original material, but must be identified.</li> </ul>	<p>- Conservation must be:-</p> <ul style="list-style-type: none"> <li>• maintaining the authenticity of a heritage building;</li> <li>• with no restrictions for future conservation work;</li> <li>• not covering any eventuality;</li> <li>• with maximum retention of the existing structure of a heritage building; and</li> <li>• that any changes of the heritage building have to be identified.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).



**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.2.1 Conservation Phases</b></p> <p>The heritage conservation process is divided into four (4) levels:</p> <p><b>i. The importance of culture: preliminary study</b></p> <p>The first stage of the conservation process is conducting a preliminary study. This involves research and investigation of buildings and sites of historical heritage, and the importance of the building and development site. Assessment will be made based on the importance of culture referring to section 67 (2), The National Heritage Act 2005.</p>	<ul style="list-style-type: none"> <li>- There are four phases of conserving a heritage building in Malaysia:-               <ul style="list-style-type: none"> <li><b>i. Preliminary Study</b> - historical research and construction developments of the conservation work.</li> <li><b>ii. Delphi/Dilapidation Study</b> - physical conditions that affect the importance of the heritage building.</li> <li><b>iii. Action Plan</b> - a detailed specification of the conservation work plan.</li> <li><b>iv. Implementation of the Action Plan</b> - applying the principle of the conservation work plan.</li> </ul> </li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>ii. Gathering information about the factors that influence the future of the building and site: Delphi study</b></p> <p>Having identified the importance of the building, the next stage is to study the damage or dilapidation. This study aims to identify the physical condition of the building and its conservation needs.</p> <p><b>iii. Preparation of an action plan: the scope of work and material specifications</b></p> <p>Having identified the extent of damage and the propose conservation work, the next stage is the preparation of an action plan containing a detailed scope of work and specifications using heritage building conservation methods. Detailed specification means the approach and working principles to be observed and included in the conservation of the building.</p>		

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>iv. Managing the building and site in accordance with the plan of action: Implementation and monitoring the conservation programmes</b></p> <p>After the scope of work is completed and approved, the next stage is the implementation of the conservation programmes. On-site conservation work is carried out using two methodologies which are a physically based method and works through three stages of building documentation. All the physical work as required in the scope of work method statement must be through conservation, and must get the approval of the Superintendent Officer of the National Heritage Department.</p>		

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.2.2 Conservation of Systematic Approach</b></p> <p>Systematic planning is essential to ensure that historic buildings are always sustained throughout the running of the project. The purpose of conservation is to treat blemishes and prevent obsolescence of heritage buildings. Work plans must include:</p> <ol style="list-style-type: none"> <li>i. Building conservation which starts from the roof to the floor (top-down);</li> <li>ii. Preliminary work of investigation which must be carried out in advance. A contractor must test the materials and conduct a mock-up at the site to ensure the materials are suitable.</li> <li>iii. Giving temporary reinforcement to the building.</li> <li>iv. A conservation proposal which must be presented in the form of a conservation procedure of work.</li> </ol>	<ul style="list-style-type: none"> <li>- Conservation is a systematic approach plan that includes:-               <ul style="list-style-type: none"> <li>• heritage building conservation from roof to floor (top-down);</li> <li>• preliminary work investigation;</li> <li>• temporary reinforcement to the heritage building; and</li> <li>• conservation proposal of the work procedure.</li> </ul> </li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.2.3 Conservator</b></p> <p>Refurbishment works must be operated and managed by those who have qualifications and professional experience in the conservation of heritage buildings. The conservator is a professional with technical skills in building conservation.</p> <p>ICOMOS provides a guidance scope of duties of a conservator as follows:</p> <ol style="list-style-type: none"> <li>i. Understanding the history and technology of monument or site for tracking identity, conservation planning and interpreting research results.</li> <li>ii. Understanding the placement of monuments, buildings or sites, the content and the environment associated with the building or landscape.</li> <li>iii. Understanding and analysing the characteristics of monuments, buildings or sites.</li> </ol>	<ul style="list-style-type: none"> <li>- A conservator<sup>43</sup> is an individual who is conserving a heritage building.</li> <li>- ICOMOS describes the duties of conservator in accordance with the guidelines for conservator.</li> </ul>	<p><b><sup>43</sup> : PEOPLE - FM<sub>1</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<ul style="list-style-type: none"> <li>iv. Diagnosing the underlying cause of damage to a building and recommending conservation action.</li> <li>v. Investigating and reporting damage, supported by sketches and photographs.</li> <li>vi. Making decisions based on ethics and principles, with long-term responsibility for cultural heritage.</li> <li>vii. Explaining their views and giving advice on areas that should be reviewed by experts such as wall paintings, sculptures and objects/ sites with cultural and artistic value.</li> <li>viii. Providing expert advice relating to maintenance strategies, management policies and a framework for environmental protection, and preservation of monuments, buildings and sites.</li> <li>ix. Documenting all work.</li> </ul>		

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>x. Working in a variety of fields/ disciplines of expertise.</p> <p>xi. The ability to work with all groups, administrators, managers, and planners to resolve conflict and to plan conservation strategies.</p> <p><b>2.3 Conservation Work Principles</b></p> <p><b>2.3.1 Preservation of Original Materials</b></p> <p>Conservation is a process to maintain culturally significant buildings and sites. All work should be in a state of conservation of the original construction of the building both in terms of architecture and the materials used. Any changes are not allowed. However in certain cases, for the purpose of establishing the strength of the material and extending the life of the building, it is possible to use new materials, and construction techniques.</p>	<ul style="list-style-type: none"> <li>- Conservation works aim to preserve the technology<sup>44</sup> and material used in conserving a heritage building.</li> <li>- For instance, retention of a <i>Senggora</i> roof of a traditional Malay house.</li> </ul>	<p><b>44 : TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>Retention of original material, including the method of identifying the significance of the overall conservation which includes natural and cultural elements and focuses on the history, functions, relationships, and meanings of materials or objects on the buildings and heritage sites. An example is conserving the <i>Senggora</i> roof of a traditional Malay house.</p> <p><b>2.3.2 Selection of Materials and Techniques</b></p> <p>The technique used must be traditional, but modern methods under certain circumstances are allowed, after conducting scientific research. New materials and techniques which are introduced and used in conservation work must be proven applicable in the same cases.</p>	<ul style="list-style-type: none"> <li>- The selection of techniques and technology<sup>45</sup> used must preserve the authenticity when conserving a heritage building.</li> </ul>	<p><sup>45</sup> : <b>TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).



**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.3 Repairing and Conserving a Building</b></p> <p>Repairing and preserving damage of a building that has been identified with the applicable rules and in accordance with the conservation principles. Every part of the building which has defects and damage must be identified and described with a method of conservation procedures specifying work damage, conserving techniques (traditional or modern) and also the materials used. The repair work should include replacement with the least amount of new materials and should use materials that match the original in terms of colour, shape, size, and texture.</p>	<ul style="list-style-type: none"> <li>- The process<sup>46</sup> of conserving a heritage building includes identifying the materials and technology<sup>47</sup> used.</li> </ul>	<p><sup>46</sup> : <b>PROCESS - FM<sub>3</sub></b></p> <p><sup>47</sup> : <b>TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.4 Design of New Work</b></p> <p>Any suggestions or conservation involving a new design must be appropriate to the visual layout in terms of the form, scale, colour, texture, and materials. The building which has undergone change during different usages shall be maintained at the level it was last used. However, if there is strong evidence of the original condition of the building as the original plan or other evidence, the conservation work must be in accordance with the original. All additions or changes must be abandoned or removed.</p>	<ul style="list-style-type: none"> <li>- The process<sup>48</sup> and technology<sup>49</sup> of conservation is a new work design while sustaining the authenticity of a heritage building.</li> </ul>	<p><sup>48</sup> : <b>PROCESS - FM<sub>3</sub></b>  <sup>49</sup> : <b>TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.5 Reinforcing or Strengthening</b></p> <p>Reinforcement is the process that helps to strengthen the fabric and maintain its position. When related to conservation work, it must not add new material onto the original fabric. However, in certain circumstances to extend the life of the buildings, reinforcement is part of the process of reconstruction and new building materials are introduced. An example, is the technique of grouting or inserting a rod into a brick wall.</p>	<ul style="list-style-type: none"> <li>- The process<sub>50</sub> and technology<sub>51</sub> of conservation is reinforcing and strengthening the structure of a heritage building.</li> </ul>	<p><b>50 : PROCESS - FM<sub>3</sub></b>  <b>51 : TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.6 Protection</b></p> <p>The structure and components of historic buildings should be protected during conservation work so that no additional damage occurs. Some components of historic buildings cannot be removed and must be preserved at the original place. Therefore it should be protected to preserve components or elements of buildings while conservation work is done. An example is building a temporary roof to protect the existing roof structure.</p>	<ul style="list-style-type: none"> <li>- In conducting conservation work, some part or structure of the heritage building may be needed to be protected.</li> <li>- For instance, a temporary roof is needed so as to protect the existing roof structure.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.7 Identifying and Maintaining the Elements</b></p> <p>Each element and component in the building that needs to be restored, including the roof, walls, floor, columns, doors, windows, and building decoration elements should be identified in terms of elements of characteristics, and maintaining the overall features of historic interest and culture. Through the identification and retention of element of characteristics that are important to the history of a building, a conservator can indirectly influence to design and plan of the work procedure for the conservation of each component and building elements.</p>	<ul style="list-style-type: none"> <li>- In conservation work, identifying and maintaining the components of the roof, walls, and windows<sup>52</sup> are vital in order to sustain the heritage building's structure.</li> </ul>	<p><sup>52</sup> : <b>PROCESS - FM<sub>3</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.8 Replacing a Damaged Element</b></p> <p>Elements that are too badly damaged or decayed, broken, cracked or attacked by termites and fungi should be replaced with matching material to the original and should be marked on the tag as replacement material that has an element of conservation. This is to distinguish the old and the new material. The entire replacement should be recorded by marking the location on a plan/ drawing.</p>	<ul style="list-style-type: none"> <li>- Conservation includes the process<sup>53</sup> and technology<sup>54</sup> replacing a damaged element of a heritage building.</li> </ul>	<p><sup>53</sup> : <b>PROCESS - FM<sub>3</sub></b>  <sup>54</sup> : <b>TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.9 Treating and Caring</b></p> <p>Materials that have been repaired and restored with care and well maintained during conservation work in progress. Elements that may be vulnerable to new damage such as dirt on the surface or the effects of mechanical action such as scratches due to friction of heavy loads must be protected. Wood materials prior to treatment such as chemical treatment or drying out the site, should be preserved and protected. Usage of hazardous chemicals must comply with safety procedures and specialist services are needed.</p> <p><b>2.3.10 Preservation</b></p> <p>Preservation is any work to protect, maintain, and stabilise the building materials and design of old buildings, monuments or heritage site so that it is free from the threat of damage or obsolescence. Preservation must use materials and methods that are proven treatments in the same cases and must be accompanied by a periodically maintenance schedule.</p>	<ul style="list-style-type: none"> <li>- In conservation work, the process<sup>55</sup> and technology<sup>56</sup> of treating and caring for the materials of a heritage building structure are carried out.</li>   <li>- The process<sup>57</sup> of preservation includes the technology<sup>58</sup> aiming to protect and maintain the structure of a heritage building.</li> </ul>	<p><b>55 : PROCESS - FM<sub>3</sub></b>  <b>56 : TECHNOLOGY - FM<sub>4</sub></b></p> <p><b>57 : PROCESS - FM<sub>3</sub></b>  <b>58 : TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.11 Restoration</b></p> <p>Restoration is repair work which returns the concept, materials, and condition of the building, monument or heritage site to the original, without introducing new materials, with reference to the appropriate historical era. Archaeological excavation and plans and old photos can help the study.</p>	<ul style="list-style-type: none"> <li>- Restoration involves the process<sup>59</sup> and technology<sup>60</sup> of returning the concept, materials, and authenticity of a heritage building.</li> </ul>	<p><sup>59</sup> : <b>PROCESS - FM<sub>3</sub></b>  <sup>60</sup> : <b>TECHNOLOGY - FM<sub>4</sub></b></p>
<p><b>2.3.12 Reconstruction</b></p> <p>Reconstruction can only be done when there is any situation that involves a building with serious damage or loss of some elements or the entire site. Reconstruction work must be based on historical evidence and it must be constructed as the original design in terms of appearance, layout, texture, colour, and scale.</p>	<ul style="list-style-type: none"> <li>- The process<sup>61</sup> and technology<sup>62</sup> of reconstruction is conducted when serious damage has occurred to the structure of a heritage building.</li> </ul>	<p><sup>61</sup> : <b>PROCESS - FM<sub>3</sub></b>  <sup>62</sup> : <b>TECHNOLOGY - FM<sub>4</sub></b></p>

Source: Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).



**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.13 Renovation</b></p> <p>Renovation is installing any equipment or appliances for the building services functions such as the installation of air conditioning, an elevator, electrical wiring, and includes the addition of new functions such as building a car park, or placing a mirror/glass at the opening. Modifications and additions must not alter the original form of the building, and must use building materials that seen in harmony with the overall appearance of the building in terms of colour and design.</p>	<ul style="list-style-type: none"> <li>- Renovation is installing any additional equipment to the heritage building or its surroundings such as air conditioning, an elevator or building a car park.</li> <li>- However, modifications must not alter the authentic structure of a heritage building.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.14 Respect for the Heritage Character</b></p> <p>Any proposed development or renovation must respect the:-</p> <ol style="list-style-type: none"> <li>i. Architectural character of the building or monument and its relationship to the historical ties;</li> <li>ii. Axis with its important perspective to the building and site, reflected, and protected;</li> <li>iii. Layout or setting, spaces, and other important components of the history of the site such as buildings, trees, and others;</li> <li>iv. Identification buildings or monuments and landscapes that have been at the site. This is important so that new development will not affect or dispose of the residual effects which may be in the soil. Archaeological excavation and plans and old photos can help this study.</li> </ol>	<ul style="list-style-type: none"> <li>- Any proposed development or renovation must respect the characteristics of heritage.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.15 Annexes or New Buildings</b></p> <p>Any proposal for additional buildings or new buildings close to the existing building or which are on the same site must considering the following:-</p> <ol style="list-style-type: none"> <li>i. A new construction on the site is allowed if it does not destroy or obscure the cultural significance of the old site or take away from the interpretation, and appreciation of the real, original site;</li> <li>ii. Proposed new building close to existing heritage buildings should take into account the preservation of the architectural character of the heritage building, the integrity of the site, and the layout of the historic area;</li> <li>iii. New development should not undermine the original structure, the design, and architecture of heritage buildings;</li> </ol>	<ul style="list-style-type: none"> <li>- Any proposed for additional buildings or annexes must comply with the outline procedure.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<ul style="list-style-type: none"> <li>iv. The height and distance of the new building from the historic building must produce a harmony of architecture and layout of the building as a heritage site. The developers need to be creative to interpret aspects of architectural harmony, if it is a design that resembles the existing heritage buildings;</li> <li>v. The proposed design must take into account the elements of the scale and character of the building and site without neglecting the superiority of the heritage buildings and not misleading the public in order to identify the true heritage; and</li> <li>vi. Any development must take into account the development of minimal traffic impact on the heritage buildings or monuments.</li> </ul>		

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.16 Design and Reconstruction of the Missing Elements</b></p> <p>The design and reinstalling or reconstruction of the elements or parts which are missing such as doors, windows, stairs, or elements with decorative motives on the walls can be made only after extensive research is done, based on historical records and discovery through archaeological excavation.</p>	<ul style="list-style-type: none"> <li>- Any design and reconstruction of the missing elements of a heritage building is based on historical and archaeological records.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.17 Landscape Proposal</b></p> <p>Any landscape proposal near or in the building site must:</p> <ul style="list-style-type: none"> <li>i. Record and make sure about any important landscape associated with the site and maintained heritage buildings;</li> <li>ii. Make sure the proposal is consistent with the character of the landscape history and heritage sites and do not affect, but rather protects important views towards the building;</li> <li>iii. Ensure that planting must takes into account the distance from the heritage building and does not affect the structure of the heritage building after the trees mature; and</li> <li>iv. Proposed trees planted will not invite pests such birds, bats, or insects that may affect the heritage building.</li> </ul>	<ul style="list-style-type: none"> <li>- Any landscape proposal near or in a heritage building must be compliant with the outline procedure of conservation.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>2.3.18 Modification</b></p> <p>Modification of the function and usage of the old building to a new, but yet still maintaining the shape and character of the original building. Before the modification work is done, the details of the original building such as the use of space and the characteristics of the elements must be recorded. As-built architecture drawings and new construction paintings must be provided for the purpose of the building's records.</p> <p><b>2.3.19 Records and Documentation</b></p> <p>The overall work process must be recorded by taking photographs and video footage. Conservation work should also be produced in the form of a written report containing work methods and procedures for each conservation case.</p>	<ul style="list-style-type: none"> <li>- Heritage building modification means changing the usage of the building, but still maintaining the shape and structure of the building.</li>   <li>- Heritage building conservation must be recorded and documented.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

<b>D<sub>3</sub>- GCHB</b>		
<b>Document Transcript</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<p><b>PART III: DOCUMENTATION GUIDELINES</b></p> <p>The third part explains the stages in building documentation, methods, and components of documentation.</p> <p>Documentation is the most important and leading role in the conservation of heritage buildings. Documentation is implemented in all overall processes of conserving buildings. It is divided into 3 phases which are before, during, and after the conservation work.</p>	<p><b>Part III: Documentation Guidelines</b></p> <ul style="list-style-type: none"> <li>- Explains the documentation guidelines for conserving a heritage building.</li> <li>- It is divided into:-               <ul style="list-style-type: none"> <li>• before conservation;</li> <li>• during conservation; and</li> <li>• after conservation</li> </ul> </li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).



**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>Documentation required by the Department of National Heritage is as follows:-</p> <ol style="list-style-type: none"> <li>i. Historical and architectural documentation provided through historical research;</li> <li>ii. Building details during discovery documentation provided through as-built architecture drawings;</li> <li>iii. Documentation on the condition of the building which is prepared via a Delphi Study;</li> <li>iv. Document of materials and structural strength provided by investigation and experimental materials;</li> <li>v. Documentation of the work process through weekly and monthly progress reports;</li> <li>vi. Documentation details after the conservation process by completing the as-built architecture drawings on the additional sections, or changes to the</li> </ol>	<ul style="list-style-type: none"> <li>- The documentation required has to be compliant with the Department of National Heritage.</li> </ul>	

existing structure.		
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*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>COMPONENTS OF THE DOCUMENTS</b></p> <p>This section describes the aspects involved and required in preparing the documentation of heritage buildings.</p> <p><b>3.1 Historical Research</b></p> <p>The importance of conducting a historical research is to scan and provide an actual sketch of the building and its history and the environmental conditions during the era the building was constructed. The materials from the historical research can assist in determining the strategies used and in conserving a heritage building according to the era and also to propose recommendations for future building functions.</p>	<ul style="list-style-type: none"> <li>- Historical research is needed for the reference of conserving a heritage building.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.1.1 Purpose</b></p> <p>Obtaining the history of the building and site information in terms of architecture, construction developments, changes in the building, function and use of buildings.</p> <p><b>3.1.2 Sources of Information</b></p> <p>Collection of historical information obtained from the following sources:-</p> <ol style="list-style-type: none"> <li>i. Written sources such as books, reports, newspaper clippings, magazines, papers, and personal records;</li> <li>ii. Visual sources such as drawings, maps, plates, photographs;</li> <li>iii. Resources such as through an interview or statement from certain people about</li> </ol>	<ul style="list-style-type: none"> <li>- The purpose of historical research is to obtain information about a heritage building.</li>   <li>- Multiple of sources of evidences can be obtained through historical research such as written and visual sources; reports, and records.</li> </ul>	

the past history; and iv. Reports and records of previous investigations.		
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**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.1.3 Document Components</b></p> <p>Components of the report documents presented must contain the following information:</p> <ul style="list-style-type: none"> <li>i. History of the site and its association with certain people such as the government, the owner, occupier, manager, and the person who built it;</li> <li>ii. The purpose and function, and the history of the building's construction;</li> <li>iii. An overview history of the site through visual materials such as photographs, drawings or a long plan;</li> <li>iv. The building design, architectural styles and influences; and</li> <li>v. Date and historical development which includes renovation of the building and its use up to the present.</li> </ul>	<ul style="list-style-type: none"> <li>- The document components are compliant to the outline conservation procedure.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.2 Documentation of the Building - HABS I</b></p> <p>Documentation of a building which is a historic building and recording activities undertaken prior to any decision to be made in conservation work. These include architectural style, shape, finishes and decorative motifs details, and the condition of the building as it was discovered. Building documentation at this stage is known as a “Historical Architecture Building Survey” or HABS Level I.</p>	<ul style="list-style-type: none"> <li>- HABS I is a document to be prepared by the contractor during the conservation work.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.2.1 Purpose</b></p> <p>To produce measurable drawings via the work of recording, measuring or observing measurements of historic buildings and sites. The drawings are similar to the “As-built Architectural Drawing”. Measured drawings are made from the observation of actual measurements of the building and if there is a slanted wall, or cracked, or missing elements, these should be entered into the drawing. In the work of documenting heritage buildings, it should be supported by documentation materials such as photographs to capture the current state of discovery. It also aims to record the measurements made under difficult conditions.</p>	<ul style="list-style-type: none"> <li>- The purpose of a HABS I is to record the appearance of the heritage building during the discovery phase through “As-Built Architecture Drawing”.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.2.2 Method</b></p> <p>There are four (4) methods for documenting a building into measured drawings:-</p> <ul style="list-style-type: none"> <li>i. Manual method/hand measurement;</li> <li>ii. Grafting method or the actual picture grid known as photo-scale;</li> <li>iii. Methods using Computer-Aided Digital Drafting (CAD); and</li> <li>iv. Photogrammetric methods.</li> </ul>	<ul style="list-style-type: none"> <li>- Defects of a heritage building are recorded with scale drawings and actual measurements.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.2.3 Documentation Aspect</b></p> <p>The documentation involves the measurement and recording of details found during discovery. This includes the measurement of a range of aspects including:-</p> <ol style="list-style-type: none"> <li>i. Measuring and recording the building, site, and other building elements as discovered;</li> <li>ii. Measuring and recording the history which has a unique architectural value including what has partly collapsed or been lost;</li> <li>iii. Measuring and recording any historical evidence of the original building and the evidences that indicate expansion; and</li> <li>iv. Measuring and recording the decorative motifs elements on the wall surfaces and openings such as plasterworks and wood carvings.</li> </ol>	<ul style="list-style-type: none"> <li>- The documentation aspect of HABS I is in accordance with the specific guidelines.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).



**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.2.4 Measured Drawing Components</b></p> <p>Measured drawings should include a:-</p> <ol style="list-style-type: none"> <li>i. Floor plan drawing;</li> <li>ii. Side view drawing;</li> <li>iii. Front and back view drawing;</li> <li>iv. Section drawing;</li> <li>v. Roof drawing;</li> <li>vi. Detail element drawing; and</li> <li>vii. Axonometric drawing.</li> </ol> <p><b>3.3 Dilapidation study</b></p> <p>A destructive survey to a building condition and damage is known as a Dilapidation Study.</p> <p>A dilapidation report is produced before conservation.</p>	<ul style="list-style-type: none"> <li>- The measured drawing components of HABS I are accordance with specific guidelines.</li>   <li>- A dilapidation report is a destructive survey of damage to a heritage building which is produced before conservation work.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.3.1 Purpose</b></p> <p>A dilapidation study is a process to identify and record the condition of building defects.</p> <p><b>3.3.2 Method</b></p> <p>The next stage should be followed when starting or during field surveys:</p> <ol style="list-style-type: none"> <li>i. Getting the building plan;</li> <li>ii. Provide a coding system for all components and elements of the building, inside and out, the location, type of material, and damages;</li> <li>iii. Inserting the code component system and elements on the building plan;</li> <li>iv. Producing a drawing or plan used in plotting the work is a basic plan from the drawing's measurements;</li> </ol>	<ul style="list-style-type: none"> <li>- A dilapidation report is needed for a heritage building's defects, inventory elements, and methods of treatments and conservation recommendations.</li>   <li>- A dilapidation report is produced before conservation in accordance with specific guidelines.</li> </ul>	

v. Marking the code elements on the wall's surface;		
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Source: Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

<b>D<sub>3</sub>- GCHB</b>		
<b>Document Transcript</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
vi. Providing a research survey from the dilapidation report; vii. Recording the condition and the extent of damages of a buildings in the form, in order to complete the report with key details; <ul style="list-style-type: none"> <li>- Name of recorder</li> <li>- Date of recording</li> <li>- Building elements</li> <li>- Location/zone/code/grid element</li> <li>- Type of damage</li> <li>- Extent of damage</li> <li>- Proposed conservation</li> </ul> viii. Taking photographs of each of the elements studied; and ix. A picture of each element according to the grid and the location should be kept in an album and arranged systematically following the same numbering system as the dilapidation form.		

Source: Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.3.3 Document's Components</b></p> <p>Provide written reports and a dilapidation survey containing the following items:-</p> <ul style="list-style-type: none"> <li>i. Title of project;</li> <li>ii. History and background of the historic building;</li> <li>iii. Architectural aspects;</li> <li>iv. The types and causes of damage to the building;</li> <li>v. Studies and scientific tests;</li> <li>vi. Proposed conservation work;</li> <li>vii. Conclusion, and</li> <li>viii. Attachments.</li> </ul>	<ul style="list-style-type: none"> <li>- Dilapidation report document's components are in accordance with specific guidelines.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.4 Investigations and Material Experiments</b></p> <p>Investigations and experiments are performed to identify the essential ingredients of the original building materials to find the durability of the materials. As a result of the investigation of materials, resources will provide new materials of the shape and composition of the original content which are required or acquired.</p> <p><b>3.4.1 Purpose</b></p> <p>For the purpose of scientific information of the form of a historic building through analysis of samples of the building materials.</p>	<ul style="list-style-type: none"> <li>- The investigation and material experiments aim to identify the material ingredients of a heritage building.</li>   <li>- The purposes of the experiments are to analyse samples of a heritage building.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.4.2 Investigation Method</b></p> <p>Investigation of the test material is non-destructive testing. Tests on building materials can be carried out on-site or in the laboratory.</p> <p>i. Field tests:-</p> <ul style="list-style-type: none"> <li>• using the tools and techniques that provide minimal damage to the fabric of building materials;</li> <li>• investigation must be conducted by an expert with the use of special equipment;</li> <li>• examples of test equipment such as a rebound hammer which is used to find the strength of the walls, a moisture test to find the amount of water in the wall, x-ray radiation on the surface on the walls in order to identify the types of crack and connections, to trace the voids and cracks and other technologies to detect the structural strength of the building.</li> </ul>	<ul style="list-style-type: none"> <li>- The investigation methods consist of field tests and laboratory tests.</li> </ul>	

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Source: Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
ii. Laboratory tests:- <ul style="list-style-type: none"> <li>• to identify the most suitable location for collection of samples, usually involving the most severely damaged part of the original building;</li> <li>• to take the minimum amount of sample material without damaging the conditions and structural characteristics of the existing bonding material such as mortar and brick;</li> <li>• marking the location and position of samples taken; and</li> <li>• sending sample to a laboratory for testing and interpretation of the material.</li> </ul>		

Source: Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.4.3 Document Components</b></p> <p>A report of the investigation and the results of laboratory testing should be written in the form of technical reporting which refers to the location of the sample and data requirement specifications.</p> <ol style="list-style-type: none"> <li>i. Microbiology study, e.g.: plant species, fungus control, and treatment materials;</li> <li>ii. Archaeological study;</li> <li>iii. Brick test, e.g.: strength test, durability, porosity;</li> <li>iv. Wood test, e.g.: species and wood test, wood grade;</li> <li>v. Plaster and mortar test, e.g.: composition material testing, compression;</li> <li>vi. Salting test, e.g.: salinity, the percentage of “ions”; and</li> <li>vii. Paint test, e.g.: the type of paint, colour scheme.</li> </ol>	<ul style="list-style-type: none"> <li>- Investigation of materials and documenting components in accordance with specific guidelines.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).



**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.5 Weekly and Monthly Report - HABS II</b></p> <p><b>3.5.1 Purpose</b></p> <p>A report of all the conservation work which is being undertaken. The report must describe the methods and techniques of conservation in every part of the building. The report must be supported with photographs, plans showing the location and if necessary this work should also include construction drawings. HABS II is carried out during conservation and is prepared by a contractor.</p>	<ul style="list-style-type: none"> <li>- HABS II is a weekly and monthly report describing the conservation work which is undertaken.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.5.2 Content</b></p> <p>The whole process of work should be recorded in a written report with photos containing work methods and procedures for each case or the scope of conservation. Documenting the entire process of this work is a component of the HABS II documents. Documents to be provided are:-</p> <ul style="list-style-type: none"> <li>i. Weekly report - a record of daily activities refurbishment of a historic building including daily weather conditions and the percentage of project progress;</li> <li>ii. Monthly report - collecting the materials from the weekly report and producing it at the end of each month.</li> </ul>	<ul style="list-style-type: none"> <li>- Each of the work processes are described in the method of statement and accompanied by photographs.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.6 Building Documentation - HABS III</b></p> <p><b>3.6.1 Purpose</b></p> <p>Plot details to complement the building after conservation to accompany “As-Built Architecture Drawing” made for adding to or changing the existing structure. The drawing also need to be equipped with colour schemes for wall details, including the opening décor inside and out.</p> <p><b>3.6.2 Method</b></p> <p>The method is similar to <b>3.2.1.</b>, building documentation HABS I. The documentation only needs to refer to the grid and drawing code reference.</p>	<ul style="list-style-type: none"> <li>- HABS III is about building documentation after the conservation work.</li>   <li>- The purpose of HABS II is to record the appearance of the heritage building during the discovery phase through “As-Built Architecture Drawing”.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.6.3 Documentation Aspect</b></p> <p>Documentation at this stage are:</p> <ul style="list-style-type: none"> <li>i. Showing the changes/ differences on the façade and the building elements after conservation;</li> <li>ii. Showing new changes or additions in terms of material/elements and techniques on the part of the restored work; and</li> <li>iii. Showing the colour changes of the building or the original colour of the building after the conservation work.</li> </ul>	<ul style="list-style-type: none"> <li>- The documentation aspect of HABS III is in accordance with specific guidelines.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.7 Final Report</b></p> <p><b>3.7.1 Purpose</b></p> <p>A report on all the conservation work that has been carried out. The report on the conservation work is part of the heritage process. This report is the evidence and historical records that occur in buildings and heritage sites. This report will serve as a reference for conservation work in the future.</p>	<ul style="list-style-type: none"> <li>- The final report of the conservation works serves as the evidence and reference for future work.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>3.7.2 Content</b></p> <p>The report must contain the following:</p> <ul style="list-style-type: none"> <li>• Title of the project;</li> <li>• Introduction;</li> <li>• Background of the project;</li> <li>• Background history of the building and site;</li> <li>• The architecture of the building;</li> <li>• The building condition;</li> <li>• Experiment of materials and structure;</li> <li>• Conservation work;</li> <li>• New work;</li> <li>• References; and</li> <li>• Appendix - plans, construction drawing, work procedure, and address of the supplier</li> </ul>	<ul style="list-style-type: none"> <li>- The content of the final report is in accordance with the conservation guidelines.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>PART IV: CONSERVATION GUIDELINES</b></p> <p>Conservation guidelines in this section explain the principles of conservation and the building elements. The guidelines do not specifically describe the treatment of each damaged building. Therefore, a conservator needs to provide conservation methods or procedures that are specific for each scope of work of heritage conservation.</p> <p><b>GUIDELINES FOR BUILDING CONSERVATION</b></p> <p>A heritage building has a unique architecture. Elements such as the roof, walls, windows, floors, columns, openings, stairs, and decorations contribute to the original character of the heritage building. These elements need to be preserved as positioning elements of the original material of the heritage building.</p>	<p><b>Part IV: Conservation Guidelines</b></p> <ul style="list-style-type: none"> <li>- This explains the conservation guidelines of a heritage building.</li>   <li>- The roof, walls, and windows<sup>63</sup> are the vital components that contribute to the characteristics of the process of conserving a heritage building.</li> </ul>	<p><b><sup>63</sup> : PROCESS - FM<sub>3</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>Any changes of the elements will affect the structure of the building as well as changes to the heritage character of the original. Each process in the conservation of a heritage building and its elements must start with an honest and careful investigation. Treatment works, disassembling, re-manufacture, and installation must be done with a minimum disruption. Any replacement with new materials also must be compatible with the original. The condition of the building must be recorded before, during, and after conservation. The principles and process of conservation can be found in <b>Part II</b>.</p> <p>Part four of the guidelines provide principles for building conservation work. The working principle is to follow each stage of the building work to ensure that a heritage building is safeguarded and the implemented conservation project is sound. This guideline provides guidance in terms of the principles of conservation work.</p>	<ul style="list-style-type: none"> <li>- The process<sup>64</sup> of conservation of a heritage building begins with an honest<sup>65</sup> and careful investigation.</li> <li>- Any material replacement and technology<sup>66</sup> used must be compatible with the authenticity of the heritage building.</li> </ul>	<p><sup>64</sup> : <b>PROCESS - FM<sub>3</sub></b>  <sup>65</sup> : <b>PEOPLE - FM<sub>1</sub></b></p> <p><sup>66</sup> : <b>TECHNOLOGY - FM<sub>4</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).



**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>4.1 Roof</b></p> <p>The roof is one of the historic characteristics of a heritage building. The roof’s scale, shape, slope, and type of packaging used is influenced by the architectural style of the building. Roof finishes contribute to the colour, texture, and pattern, while the influence of construction and carpentry either of locals or immigrants contributes to the presentation style of the building.</p> <p>The roof is the most important component to protect the building from rain, heat, and wind. Appropriate roof construction will make the building not only last longer but can also reduce the expenses of the building. The selection of a roof must not only meet the requirements but also fulfil other functions such as load, aesthetics, climate pressure, material durability, and fire prevention.</p>	<ul style="list-style-type: none"> <li>- The roof of a heritage building indicates the:-               <ul style="list-style-type: none"> <li>• aesthetic value<sup>67</sup> and</li> <li>• functionality.</li> </ul> </li> </ul>	<p><sup>67</sup> : AESTHETIC - CVHB<sub>5</sub></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>4.1.1 Roof Structure</b></p> <p>Roof structure is divided into two (2), a pitched roof and flat roof. The shape and the slope of the roof structure is also influenced by the architectural style of the building such as the roof of a Malay traditional house which have different roof shapes. Some of the examples of roofs are a long roof house, a five ridge roof, and silver roof.</p> <p>The problems that often occur in roof structures include wood decay due to moisture and termite attack. This defect can be found in wooden rafters, beams, and roof trusses, boards, or in any wood material placed, installed, constructed, or connected to the moist walls of buildings.</p>	<ul style="list-style-type: none"> <li>- The roof structure of a heritage building in Malaysia is divided to:-               <ul style="list-style-type: none"> <li>• pitched roof and</li> <li>• flat roof.</li> </ul> </li>   <li>- The problem of a roof structure in Malaysia is wood decay due to moisture and termites.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>Conservation Principles</b></p> <ul style="list-style-type: none"> <li>i. To record in advance the construction method of the roof structure. This includes the recording of the roof elements, wood type, size, and construction techniques;</li> <li>ii. Before starting the conservation, investigation into the structure needs to be done to identify the causes of defects and factors such as termite infestation, moisture, and mould growth;</li> <li>iii. Investigation of existing structural strength of wood and its identification requires in-situ conservation;</li> <li>iv. Prior work repairs, installation/construction of the temporary roof needs to be implemented for the purpose of protection of the building;</li> <li>v. Replacement of damaged wood must be of the same type and strength;</li> <li>vi. Replacement and extension of new timber should be able to establish the overall technical structure and is marked by tagging;</li> <li>vii. Conservation treatment covers the entire roof structure. If the structure is wood, termite prevention needs to be done, while a steel structure must be painted.</li> </ul>	<ul style="list-style-type: none"> <li>- The conservation principles for a roof structure are to restore the authenticity of the roof design in accordance with the guidelines.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>4.1.2 Type of Roof Finishes</b></p> <p>There are different forms of roofs in accordance with the history and architecture of the building. The construction of roof shape also corresponds to the roof finishes or tiles to be installed.</p> <p>Finishes of the roof consist of various types. Types of roof finishes depend on the shape, material, and size. Types of finishes are not necessarily the same shape as the product and also depend on the place of production.</p> <p>The type of roof finishes which are commonly found in historic buildings in Malaysia are made from <i>marsiles</i> clay tiles for the colonial buildings, the critical V shape roof for shop houses, <i>senggora</i> tiles for traditional Malay houses, and concrete tiles for modern buildings.</p>	<ul style="list-style-type: none"> <li>- There are various types of roof finishes of a heritage building in Malaysia such as:-               <ul style="list-style-type: none"> <li>• <i>marsiles</i> clay tiles for colonial buildings;</li> <li>• critical V shape for shop houses;</li> <li>• <i>senggora</i> tiles for a traditional Malay house; and</li> <li>• concrete tiles for modern building.</li> </ul> </li>   <li>- The problem of roof finishes in Malaysia are:-               <ul style="list-style-type: none"> <li>• tiles rupture and crack;</li> <li>• potholes;</li> <li>• dirty surfaces;</li> <li>• mouldy; and</li> <li>• dull colours.</li> </ul> </li> </ul>	

Source: Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>The roof finish is the most vulnerable component, as it is easily damaged, and requires maintenance and replacement. Defects commonly occurring are tile ruptures, cracks, potholes, dirty surfaces, covered with mould, and dull colours. Conservation of roof tiles are intended to rescue and treat the original tiles which can be used again.</p> <p><b>Conservation Principles</b></p> <ol style="list-style-type: none"> <li>i. The investigation and identification of the original roof finishes;</li> <li>ii. To identify the type of material, size, and the place of manufacture;</li> <li>iii. Improvement of treatment or the protection of the original roof finishes with suitable methods;</li> <li>iv. When making a replacement, it is possible to replace the original (salvage) or with new materials that match the type, shape, colour, size, and texture;</li> </ol>	<ul style="list-style-type: none"> <li>- The conservation principles for roof finishes are to restore the originality of the design.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>v. The choice of new tile which is to replace the original roof which has been completely destroyed and must be compatible with the overall appearance of the roof and building architecture.</p> <p>vi. Installation and restructuring of tiles which must be done with methods such as the original compilation.</p> <p><b>4.2 Wall</b></p> <p>Conservation of historic buildings must maintain the natural architecture including building materials and construction techniques. The old and historic building in Malaysia are built from traditional materials of brick and limestone. The building structure of walls is formed by bonding bricks and lime mortar. A historic building's brick wall structure feature gives an attractive aesthetic value by giving historic character to the building in terms of texture and colour.</p>	<ul style="list-style-type: none"> <li>- The conservation of walls of a heritage building aim to sustain building materials and technology<sup>68</sup> of the construction techniques.</li> <li>- The walls of a heritage building in Malaysia are built from brick and limestone that feature aesthetic values<sup>69</sup>.</li> </ul>	<p><b><sup>68</sup> : TECHNOLOGY - FM<sub>4</sub></b></p> <p><b><sup>69</sup> : AESTHETIC - CVHB<sub>5</sub></b></p>

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>4.2.1 Brick Wall</b></p> <p>Among the factors causing the defects in the walls of heritage buildings are environmental factors as well as the age of the building. Being in the tropics, Malaysia receives high rainfall and humidity. Rainfall and seepage of a heritage building absorbs and evaporates moisture resulting primarily on porous textures or materials. The effects of this problem is seen on the wall element; moss, dull, paint peeling, salting, cracking, friable, or brittle.</p> <p>In addition to the moisture problem, the main flaw in a heritage building's brick walls are cracking, either vertically or horizontally on the wall. Wall cracking problems could stem from various factors such as the movement of the underlying structure, weak construction materials or building materials or building extensions, shrinkage, or thermal changes in wood material which is connected to the wall.</p>	<ul style="list-style-type: none"> <li>- The problem causing the defects of brick walls in Malaysia are environmental factors such moisture, rain, and humidity.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>Conservation Principles</b></p> <ul style="list-style-type: none"> <li>i. To investigate the situation and identify the defects in wall structures. Investigation should be done with care and with minimum interference;</li> <li>ii. Parts that have been identified as being involved in structural damage must be reinforced by a suitable method to reduce disruption and damage to the wall structure;</li> <li>iii. Treatment of a brick wall due to moisture problems like a moss surface and salting should be done with proven methods and techniques;</li> <li>iv. Replacing the damaged brick with new brick must match the original in terms of colour, texture, size and strength of materials;</li> <li>v. It is best to use a brick replacement with old brick or salvage;</li> <li>vi. Material used must be recaptured for treatment and rehabilitation in the future.</li> <li>vii. Fracture connectivity and conservation should be done with proven methods and techniques, and should not damage the fabric; and</li> <li>viii. Construction should be in the form of a brick bonding arrangement as in the original form.</li> </ul>	<ul style="list-style-type: none"> <li>- The conservation principles for brick walls are to restore the authenticity of the structure in accordance with the guidelines.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).



**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>4.2.2 Mortar</b></p> <p>The main purpose of mortar is to bind the bricks or blocks on the wall. Many historic buildings use lime as a material for mortar and plaster.</p> <p>Lime produced by burning limestone or shells. Grilled lime mixed with water will produce calcium hydroxide, also known as hydrated lime. Hydrated lime when mixed with lime is known as putty. Lime mortar is a mixture of lime and sand putty. Lime and sand mix ratio is 1:3. Preparation of lime mortar materials should be made and used on-site within four hours.</p>	<ul style="list-style-type: none"> <li>- Mortar is a mixture of lime or cement, sand and water that sets firmly; it is used for bonding bricks and stones of a heritage building.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>Conservation Principles</b></p> <ul style="list-style-type: none"> <li>i. To identify if existing mortar is original and not new;</li> <li>ii. To identify the original mortar composition with laboratory analysis;</li> <li>iii. When using mortar for conservation work, it must match the original mortar in colour, texture, strength, and density;</li> <li>iv. Material tests on-site or mock-ups should be made in advance of choosing mortar which matches the original;</li> <li>v. Before bonding mortar is inserted, all existing mortar which is friable and loose or damaged should be removed; and</li> <li>vi. Prior to installing the new mortar, the old mortar which has been removed must be cleared in advance and moistened with water to ensure moist brick.</li> </ul>	<ul style="list-style-type: none"> <li>- The conservation principles for mortar are to restore the original of the structure in accordance with the guidelines.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>4.3 Ceiling</b></p> <p>The ceiling construction is made under the roof to protect the roof's wood structure. Other than that, it illuminates the neatness of the building's palate. Ceilings are usually designed according to the type of building. Ceilings of heritage buildings are usually a fix type. There are heritage buildings using suspended ceilings for the purpose of protecting a new electrical wiring system.</p> <p>Damage on the ceiling is generally due to a problem with moisture coming from defects such as a leaking roof. Defects that occur include moisture and covered with ceiling board mould, broken ceiling boards, and peeling paint.</p> <p><b>Conservation Principles.</b></p> <ol style="list-style-type: none"> <li>i. Investigation of ceiling defects;</li> <li>ii. Making a temporary reinforcement to wood beam ceilings before starting repair; and</li> <li>iii. Replacing damaged ceiling boards with corresponding material.</li> </ol>	<ul style="list-style-type: none"> <li>- A ceiling is the overhead upper surface of a covered space of a heritage building.</li> <li>- Damage to a ceiling is due to leaking of the roof.</li> <li>- The conservation principles for a ceiling are to restore the authenticity of the design in accordance with the guidelines.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>4.4 Floor</b></p> <p><b>4.4.1 Floor Structure</b></p> <p>Typically a historic building’s floor is of wood material. Beams and joists are an important components of supporting the floor boards.</p> <p>Common defects found are broken wood, rotten, worn, or eroded surfaces, scratched, and warped boards. The major cause of decay and wood damage in a heritage building is insects and termites. Insects and termites on wood materials usually occur on moist wood material. The cause of the damage to the floor surface is due to friction or dragging movement on it either by humans or furniture load.</p> <p><b>Conservation Principles</b></p> <p>i. Before the conservation work is done, an investigation should be conducted to identify defects and termite attacks on joists and floor boards;</p>	<ul style="list-style-type: none"> <li>- The floor is the inside lower horizontal surface of a heritage building.</li>   <li>- Damage of a floor is due to:-               <ul style="list-style-type: none"> <li>• termites; and</li> <li>• moisture.</li> </ul> </li>   <li>- The conservation principles for floor structure are to restore the originality of the design in accordance with the guidelines.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>Conservation Principles</b></p> <ul style="list-style-type: none"> <li>ii. It is still good to maintain the original wood floor;</li> <li>iii. Identify the type of wood used. Normally wood joists are from <i>balau</i> and <i>cengal</i>, while for the floor it is from the <i>meranti</i> species;</li> <li>iv. Existing wood joist's strength to bear the burden should be identified;</li> <li>v. Replacement timber joists and floor boards which are damaged must use a suitable type and strengthen of wood;</li> <li>vi. The damaged part of the timber should be removed or cut and connected with new wood of the same type, strength and size of the timber;</li> <li>vii. Any repair work must be with traditional construction methods and techniques;</li> <li>viii. Conduct a termite prevention treatment on the floor structure;</li> <li>ix. Provide protective coating in accordance to the floor; and</li> <li>x. Provide a temporary protection to cover the floor while conservation work is in progress.</li> </ul>		

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>4.4.2 Floor finishes</b></p> <p>Heritage building floor finishes generally use clay, marble, and ceramic tiles. Types of floor finishes known as clay or terracotta, highlight the texture and colour of the red clay, and marble finishes, are also in accordance with the original colour of white marble, either ivory or some green marble. Floor finishes of ceramic tiles also have a variety of patterns, often floral, or with a geometric pattern.</p> <p>Defects that are commonly found on the surface of the floor finishes are erosion and colour fade and dull due to erosion by the drag load; finishes can be broken, cracked or torn due to the old age of the building and adhesives are friable; surface finishes have dirt, moss and lime sludge. This problem is caused by moisture and little maintenance.</p>	<ul style="list-style-type: none"> <li>- The floor finishes of a heritage building in Malaysia usually are:-               <ul style="list-style-type: none"> <li>• clay;</li> <li>• marble; and</li> <li>• ceramics</li> </ul> </li>   <li>- The defects of floor finishes of a heritage building are due to:-               <ul style="list-style-type: none"> <li>• moisture; and</li> <li>• erosion.</li> </ul> </li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>Conservation Principles</b></p> <ul style="list-style-type: none"> <li>i. The original floor should be maintained;</li> <li>ii. Addition or substitution of new floor tiles should match the original floor;</li> <li>iii. The work of cleaning and smoothing the floor finishes should use methods and materials that do not damage the treatment of the original floor; and</li> <li>iv. Provide temporary protection to cover the floor while conservation work is in progress.</li> </ul>	<ul style="list-style-type: none"> <li>- The conservation principles for floor finishes are to restore the authenticity of the design in accordance with the guidelines.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>4.5 Doors and windows</b></p> <p>Doors, windows, and openings such as arches and wind lattice reflect the uniqueness of heritage buildings. Elements of the doors, windows, and openings of the heritage building have a various shapes and styles including details appropriate to the function and location of the installation. The elements that form the windows and doors are the frame and leaf casement. Doors and windows are usually made of wooden materials. Other materials are metal, plastic, and aluminium. Panels on the doors and the windows are usually made of wood and glass.</p> <p>Defects that are commonly found on doors and windows are rotten and broken frames due to obsolescent wood, moisture, or potential termite attack. Doors and windows also often experiencing problems closing. This problem is due to shrinkage and thermal changes on parts of the door, wood extension, and accidents caused by the work in progress.</p>	<ul style="list-style-type: none"> <li>- The doors and windows of a heritage building are usually made of wooden materials.</li>   <li>- The defects of the doors and windows are due to:-               <ul style="list-style-type: none"> <li>• obsolescent wood;</li> <li>• moisture; and</li> <li>• termites</li> </ul> </li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).



**Table 12 (continued):** Content Analysis for Document 3 - The Guidelines for Conservation of Heritage Buildings.

D <sub>3</sub> - GCHB		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>Conservation Principles</b></p> <ul style="list-style-type: none"> <li>i. Conservation work starts with the doors and windows and labelling an inventory of damaged doors and windows on the plan;</li> <li>ii. Doors and windows that are damaged and decayed; broken frames are removed and taken to the workshop for repair work;</li> <li>iii. Replacement of rotted wood cut and connected via mortising;</li> <li>iv. Paste all fine holes, cracks, and uneven surfaces to the frame surface and the door frame and windows with a putty material;</li> <li>v. Install the frames, doors, and windows of the building which have been removed and restored, back to their original positions; and</li> <li>vi. Provide protection to the doors and windows that have been restored by wrapping doors and windows with plastic. This is to prevent new damage to the wood.</li> </ul>	<ul style="list-style-type: none"> <li>- The principles of conservation of doors and windows are to restore the doors and windows to the design and construction of the original in accordance with the guidelines.</li> </ul>	

*Source:* Adapted from the Guidelines for Conservation of Heritage Buildings - Malaysia (2005).

**Table 13:** Content Analysis for Document 4 - The Conservation Management Plan.

D <sub>4</sub> – CMP		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p style="text-align: center;"><b>CONSERVATION MANAGEMENT PLAN: MALACCA THE HISTORIC CITY</b></p> <p><b>INTRODUCTION</b></p> <p>The Malacca World Heritage Site Management Plan identifies what is significant about the World Heritage Site, recognises challenges and threats, and sets out policies to preserve and enhance the site.</p> <p>Having a Conservation Management Plan (CMP) is crucial as it as an important tool to caring for the very unique and diverse tangible and intangible heritage that Malacca has inherited from its previous glorious years. This document provides a guide to future care and use, including facilitating any new development within the conservation area.</p> <p>The Conservation Management Plan identifies key features of the World Heritage Site (WHS) such as the unique landscape, the architectural characteristics, and intangible aspects of culture in Malacca. It also clarifies the purpose of protecting its Outstanding Universal Values (OUV) which has inherited.</p>	<ul style="list-style-type: none"> <li>- This introductory part of the CMP indicates the:-               <ul style="list-style-type: none"> <li>• guide to future care and use of the development of the conservation area in Malacca;</li> <li>• identifies key features of Malacca such as landscape, architectural characteristics, and intangible culture; and</li> <li>• clarifies the purpose of protecting OUV<sub>1</sub> of the conservation area.</li> </ul> </li> </ul>	<p><b><sub>1</sub> : OUV - D<sub>2</sub></b></p>

*Source:* Adapted from the Conservation Management Plan: Historic Cities of Straits of Malacca (2011).

**Table 13 (continued):** Content Analysis for Document 4 - The Conservation Management Plan.

D <sub>4</sub> – CMP		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>PURPOSE OF THE PLAN</b></p> <p>The plan shall serve to guide the promotion of conservation, preservation, rehabilitation, restoration and reconstruction in the WHS. Its broad objective is to facilitate the proper management of the WHS, including the use and development of all buildings and land; measures that would enhance the integration of the physical environment with the socio-cultural development and well-being of its people, and the demands of growth.</p> <p>The management plan outlines the much needed strategies and guidance that would enable and allow changes to take place within a framework of conservation and protection. It would give recognition to the people and communities that live within the WHS and enable them to continue to live and follow their cultural and social practices. It would address threats and issues that would hamper heritage conservation of the heritage and identity emerging risks to enable monitoring.</p>	<ul style="list-style-type: none"> <li>- The purpose of the CMP is to guide and assist the conservation process<sub>2</sub> in Malacca.</li> </ul>	<p><b>2 : PROCESS - FM<sub>3</sub></b></p>

*Source:* Adapted from the Conservation Management Plan: Historic Cities of Straits of Malacca (2011).

**Table 13 (continued):** Content Analysis for Document 4 - The Conservation Management Plan.

D <sub>4</sub> – CMP		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>The management plan serves as a long term comprehensive framework to guide heritage conservation of the area in Malacca. Its principles, objectives, and policies are long term, but its strategies and measures are flexible, allowing for change and further improvements.</p> <p><b>OBJECTIVES OF THE MANAGEMENT PLAN</b></p> <ol style="list-style-type: none"> <li>1. To formulate the vision and policies for the WHS under the Conservation Management Plan;</li> <li>2. To propose management strategies and action plans to protect the OUV significance of the WHS;</li> <li>3. To review the existing site management plans in Malacca in order to enhance the protection and conservation of the city and the significance of its heritage values;</li> <li>4. To collect and examine existing data using the Geographical Information System (GIS) and to build up new databases of tangible and intangible indicators which will become the cornerstone to the management and monitoring of both properties in the WHS;</li> </ol>	<ul style="list-style-type: none"> <li>- The objectives of the CMP are to sustain the authenticity of the conservation area in Malacca.</li> </ul>	

*Source:* Adapted from the Conservation Management Plan: Historic Cities of Straits of Malacca (2011).

**Table 13 (continued):** Content Analysis for Document 4 - The Conservation Management Plan.

D <sub>4</sub> – CMP		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<ol style="list-style-type: none"> <li>5. To acknowledge and safeguard the intrinsic values of the WHS, and understand the emerging issues with regard to opportunities, threats, and constraints;</li> <li>6. To identify current conservation issues and challenges to the physical, social, and cultural development which could threaten and undermine the OUV of WHS;</li> <li>7. To prepare planning controls, regulations, and guidance for the core, and buffer zones of the WHS;</li> <li>8. To formulate a regulatory urban framework plan that will address the form and scale of development as well as public nodes and open spaces in the conservation area;</li> <li>9. To formulate guidelines on a traffic management plan;</li> <li>10. To improve physical access and interpretation, encouraging all people to enjoy and understand the WHS;</li> <li>11. To create public awareness and create an interest and involvement in the WHS of Malacca and its local communities;</li> </ol>		

*Source:* Adapted from the Conservation Management Plan: Historic Cities of Straits of Malacca (2011).

**Table 13 (continued):** Content Analysis for Document 4 - The Conservation Management Plan.

D <sub>4</sub> – CMP		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>12. To draft an action plan between the relevant agencies, the time frame, methods involved and allocation of resources;</p> <p>13. To develop a short, medium and long term action plan for implementation at all levels; and</p> <p>14. To suggest incentives for support and compliance from all quarters.</p> <p><b>PREPARATION OF THE PLAN</b></p> <p>The management plan adopts a participatory approach, taking into consideration the views of communities and stakeholders. Through a series of focus group discussions held in Malacca, views of different interest groups and non-governmental organisations (NGOs) were sought. Opinions and perceptions on issues related to buildings, landscaping, traffic, developments, environment degradation, and cultural and social aspects were discussed. These views and perceptions were taken into consideration during planning and the formulation of management strategies and guidelines.</p>	<ul style="list-style-type: none"> <li>- The preparation of the CMP for Malacca adopts a participatory approach which involves the communities, NGOs, government, professionals, and individuals interested in heritage.</li> </ul>	

*Source:* Adapted from the Conservation Management Plan: Historic Cities of Straits of Malacca (2011).

**Table 13 (continued):** Content Analysis for Document 4 - The Conservation Management Plan.

D <sub>4</sub> – CMP		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>Consultations were undertaken at both national and state level to ensure a holistic approach towards plan preparation. The Department of National Heritage, through the steering committee, gave their views and suggestions to improve the conservation management plan to ensure that the plans met the requirements of the World Heritage Committee of UNESCO. The draft conservation plan was further taken to the state and local authorities for their views.</p> <p>Within the State Planning Committee (SPC), representatives from the local authorities where the properties are located, together with representatives from various government departments and agencies were given the opportunity to express their views and make recommendations to further improve the CMP.</p> <p>The CMP that is presented here has incorporated the views, opinions, and recommendations obtained at the different stages of consultations.</p>	<ul style="list-style-type: none"> <li>- The draft of the CMP is reviewed by consultations with the Department of National Heritage, and the State Planning Committee of Malacca before it is produced.</li> </ul>	

*Source:* Adapted from the Conservation Management Plan: Historic Cities of Straits of Malacca (2011).

**Table 13 (continued):** Content Analysis for Document 4 - The Conservation Management Plan.

D <sub>4</sub> – CMP		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p>Further public consultations would be undertaken for the Special Area Plans. In line with the statutory requirements, the Special Area Plans would be exhibited in the respective properties to seek public opinion. A minimum time line of one month is to be given to allow for public feedback, and if deemed necessary, further discussions would be held to inform and explain the Special Area Plans to the general public before the Special Area Plans are finalised and approved.</p> <p><b>USER OF THE PLAN</b></p> <p>It is for the authorities to refer to and use the plan in carrying out its implementation and to ensure that the guidelines are adhered to. It is also for the community, the building’s owners and the general public, especially those living within the properties who constantly encounter changes in their physical, social, and cultural environment. For the building’s owners, especially the owners of heritage buildings, the CMP should serve as a guide and reference which would enable them to manage and care for the buildings for now and for the future generations.</p>	<ul style="list-style-type: none"> <li>- The public have a month to comment on the draft before it is finalised.</li>   <li>- The users of the CMP are:-               <ul style="list-style-type: none"> <li>• local authorities;</li> <li>• local Community;</li> <li>• heritage building’s owners; and</li> <li>• the public.</li> </ul> </li> </ul>	

*Source:* Adapted from the Conservation Management Plan: Historic Cities of Straits of Malacca (2011).



**Table 13 (continued):** Content Analysis for Document 4 - The Conservation Management Plan.

D <sub>4</sub> – CMP		
Document Transcript	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>REVIEWING THE PLAN</b></p> <p>This CMP has a lifespan of six years during which a sizeable number of programmes are expected to be carried out. In addition, there are also a number of programmes and elements that would extend beyond the six year period. Nevertheless, the life-span of the programmes proposed within this management plan depends very much on the extent of commitment of all parties involved in implementing the programmes.</p> <p>Within the review period of six years of the CMP, annual reviews will be carried out to ensure the CMP is updated to be as relevant as possible to the circumstances facing the WHS. Annual reviews will focus on Implementation Plans rather than the content of this CMP. The annual review plan offer short-term updates towards ensuring a better management of the WHS.</p> <p>The review process becomes the responsibility of the State Party who will be assisted by the Chief Executive Officer of the World Heritage Office. A Steering Committee will be set up to assist in the review and to provide feedback of Plan’s implementation.</p>	<ul style="list-style-type: none"> <li>- CMP is reviewed every six years which covers the strategies of the plan.</li>   <li>- The State Party of Malacca, Heritage Commissioner, and a Steering Committee are involved in reviewing the CMP.</li> </ul>	

*Source:* Adapted from the Conservation Management Plan: Historic Cities of Straits of Malacca (2011).

## 5.6 Summarisation of Descriptive Codes from the Document Reviews for D<sub>1</sub>, D<sub>2</sub>, D<sub>3</sub>, and D<sub>4</sub>

Table 10 to Table 13 in Section 5.5 indicates the Document Reviews for D<sub>1</sub> – The National Heritage Act of Malaysia (NHA); D<sub>2</sub> – Outstanding Universal Values (OUV); D<sub>3</sub> – Guidelines for Conservation of Heritage Building in Malaysia (GCHB); and D<sub>4</sub> – Conservation Management Plan of Malacca (CMP). This section will summarise the Descriptive Codes from these four documents that will be used later for the framework development. Table 14 shows a display for the summarisation of Descriptive Codes for these documents.

**Table 14:** Summarisation of Descriptive Codes for D<sub>1</sub>, D<sub>2</sub>, D<sub>3</sub>, and D<sub>4</sub>.

Document Identifier	Descriptive Codes											
	CVHB <sub>1</sub>	CVHB <sub>2</sub>	CVHB <sub>3</sub>	CVHB <sub>4</sub>	CVHB <sub>5</sub>	CVHB <sub>6</sub>	CVHB <sub>7</sub>	CVHB <sub>8</sub>	FM <sub>1</sub>	FM <sub>2</sub>	FM <sub>3</sub>	FM <sub>4</sub>
D <sub>1</sub>	X	-	-	XXXX	XX	XX	-	X	X	X	X	XXXX
D <sub>2</sub>	-	-	-	XX	XX	-	-	-	-	-	-	-
D <sub>3</sub>	X	-	-	XXXXX XXXX	XXXXX XXXX	XX	-	X	XXX	X	XXXXX XXXXX XXXXX XXXXX X	XXXXX XXXXX XXXXX XXXXX X
D <sub>4</sub>	-	-	-	-	-	-	-	-	-	-	X	-
<b>Total</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>15</b>	<b>13</b>	<b>4</b>	<b>-</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>23</b>	<b>25</b>

Referring to **Table 14**, it indicates that **CVHB<sub>2</sub>** – economic; **CVHB<sub>3</sub>** – political; and **CVHB<sub>7</sub>** – age does not appear in any of the four vital documents for conservation practice in Malaysia. It also verified that only five **CVHB** which are **CVHB<sub>1</sub>** – social; **CVHB<sub>4</sub>** – historic; **CVHB<sub>5</sub>** – aesthetics; **CVHB<sub>6</sub>** – scientific; and **CVHB<sub>8</sub>** – age are used in the current conservation of heritage building in Malaysia. The **FM** perspective of **FM<sub>1</sub>** – people; **FM<sub>2</sub>** – place; **FM<sub>3</sub>** – process; and **FM<sub>4</sub>** – technology does exist in all documents analysed. A summarisation of the description coding in **Table 14** will be used later in discussing the development framework in this thesis.

Therefore, the next section will discuss the current findings for **RO<sub>2</sub>: UNDERSTANDING THE CURRENT PRACTICE IN CONSERVING CVHB IN MALAYSIA**. Hence, the inclusion of five **CVHB** of **CVHB<sub>1</sub>**; **CVHB<sub>4</sub>**; **CVHB<sub>5</sub>**; **CVHB<sub>6</sub>**; and **CVHB<sub>8</sub>** will be discussed.

## **5.7 Discussions for RO<sub>2</sub>: UNDERSTANDING THE CURRENT PRACTICE IN CONSERVING CVHB IN MALAYSIA**

In this section the current findings for **RO<sub>2</sub>** will be discussed based on four document analyses (**Table 10** to **Table 13**) and the summarisation of Descriptive Codes for the documents (**Table 14**). It can be perceived that the majority of the participants (7 out of 8) responded that all of these documents (**D<sub>1</sub> + D<sub>2</sub> + D<sub>3</sub> + D<sub>4</sub>**) are used in conserving **CVHB** in Malaysia. However none of the respondents elaborated further about these documents application in conserving **CVHB**. Due to this, analysis of these documents has been done to critically analyse the **CVHB** elements of **CVHB<sub>1</sub>** – Social; **CVHB<sub>2</sub>** – Economic; **CVHB<sub>3</sub>** – Political; **CVHB<sub>4</sub>** – Historic; **CVHB<sub>5</sub>** – Aesthetical; **CVHB<sub>6</sub>** – Scientific; **CVHB<sub>7</sub>** – Age; and **CVHB<sub>8</sub>** – Ecological for **RO<sub>1</sub>** of this study.

**Table 10** indicates the document analysis for the National Heritage Act of Malaysia (**NHA**) or **D<sub>1</sub>** that elucidates the characteristics of current practice of **CVHB** in Malaysia. It encompasses the application of **OUV** and the **CMP**, and focuses on **CVHB<sub>1</sub>**; **CVHB<sub>4</sub>**; **CVHB<sub>5</sub>**; **CVHB<sub>6</sub>**; and **CVHB<sub>8</sub>**. **D<sub>1</sub>** also illuminates the **FM** perspective of **FM<sub>1</sub>** – people; **FM<sub>2</sub>** – place; **FM<sub>3</sub>** – process; and **FM<sub>4</sub>** – technology. In **D<sub>1</sub>**, **FM<sub>1</sub>** is referring to the Commissioner of Heritage; **FM<sub>2</sub>** is the heritage site which includes the building or surrounding area of the heritage building; **FM<sub>3</sub>** is the process of conservation that includes preservation, restoration, reconstruction, and rehabilitation; and **FM<sub>4</sub>** is related to technology that assist the conservation process in sustaining the authenticity of heritage buildings.

Therefore, even though it is not clearly stated in **D<sub>1</sub>**; the perspective of **FM** are interpreted and coded in accordance with the description of the context of the study.

Referring to **Table 11**, **D<sub>2</sub>** explained the **OUV** characteristics in conserving a heritage building. It consists of the concept of (1) Outstanding, whereby a heritage building is exceptional, superlative, and remarkable; (2) Universal, whereby a heritage building is outstanding from a global view; and (3) Value is determined based on the standards and processes of the World Heritage Convention. Only **CVHB<sub>4</sub>** and **CVHB<sub>5</sub>** are mentioned in this document.

**D<sub>3</sub>** is the guideline that elucidates the characteristics of current practice of **CVHB** in Malaysia. It consists of four parts. Part 1 is the introduction that defines a heritage building and the five characteristics of **CVHB** (**CVHB<sub>1</sub>**; **CVHB<sub>4</sub>**; **CVHB<sub>5</sub>**; **CVHB<sub>6</sub>**; and **CVHB<sub>8</sub>**) that are used in conservation; Part 2 explains the principles and process of conserving a heritage building; Part 3 discusses the documentation guidelines and includes a dilapidation study (before the conservation work), HABS I and II (during conservation), HABS III (after conservation), and the final report of the conservation work; and Part 4 is the conservation guidelines for the roof, walls, and windows.

In **D<sub>4</sub>** the significance of having Malacca's Conservation Management Plan (**CMP**) is discussed. However, none of the **CVHB** have been stated this document because **D<sub>4</sub>** is aimed at sustaining the authenticity of the conservation area in Malacca's World Heritage Site. Therefore, **D<sub>4</sub>** is regarded as one of the important documents as it was endorsed by ICOMOS and it is to be used to set out the significance of a heritage area, in retaining it for future use, as well as the management, alteration, and repair procedures.

As a summarisation from the document analysis it appears that **CVHB<sub>1</sub>** – Social; **CVHB<sub>4</sub>** – Historic; **CVHB<sub>5</sub>** – Aesthetic; **CVHB<sub>6</sub>** – Scientific, and **CVHB<sub>8</sub>** – Ecological were stated. These six **CVHB** exist due to them being vitally important in practising the conservation of heritage buildings in Malaysia. Initially, **CVHB** of **CVHB<sub>1</sub>** – Social; **CVHB<sub>4</sub>** – Historic; **CVHB<sub>5</sub>** – Aesthetic; and **CVHB<sub>6</sub>** – Scientific were established and classified by UNESCO's World Heritage Committee (2008) as the Primary Values (PVs) which have been used in evaluating heritage objects, monuments, sites, and buildings generally. However, other **CVHB** such as **CVHB<sub>2</sub>** – Economic; **CVHB<sub>3</sub>** – Political; **CVHB<sub>7</sub>** – Age; and **CVHB<sub>8</sub>** – Ecological were later introduced by UNESCO to complement the pillars of PVs in evaluating the heritage process (Riganti and Nijkamp, 2005; Piper 1948; Lowenthal, 1985; Reigl, 1982).

In conclusion, the above discussions have verified the findings and responses from EI that described four documents of **D<sub>1</sub>** – The National Heritage Act of Malaysia (**NHA**); **D<sub>2</sub>** – Outstanding Universal Values (**OUV**) by UNESCO; **D<sub>3</sub>** – Guidelines for Conservation of

Heritage Building in Malaysia (**GCHB**); and **D<sub>4</sub>** – Conservation Management Plan of Malacca (**CMP**); and all eight **CVHB** are used in the current practice of conservation in Malaysia. Therefore, the discussions in this section established the achievement of **RO<sub>2</sub>** of understanding the current practice in **CVHB** in Malaysia.

## 5.8 Summary and Link

This chapter has presented the data collection, analysis, and key findings for **RO<sub>2</sub>** in understanding the current practice in conserving **CVHB** in Malaysia. A series of eight Expert Interviews have been conducted at the strategic, tactical, and operational levels from the conservation practitioners in Malaysia. The Expert Interviews are analysed using Content Analysis to gather views on **RO<sub>2</sub>**. Four documents which are **D<sub>1</sub>** - The National Heritage Act of Malaysia (**NHA**); **D<sub>2</sub>** - Outstanding Universal Values (**OUV**); **D<sub>3</sub>** – The Guidelines for Conservation of Heritage Building in Malaysia (**GCHB**); and **D<sub>4</sub>** - Conservation Management Plan of Malacca (**CMP**) have been reviewed and verified for establishing **RO<sub>2</sub>**.

The next section will be the findings, analysis, and discussion for **RO<sub>3</sub>** to identify how the current **FM** perspective in Malaysia influences the conservation process in order to conserve **CVHB**.

## **CHAPTER 6: IDENTIFYING HOW THE CURRENT FM PERSPECTIVE IN MALAYSIA INFLUENCES THE CONSERVATION PROCESS IN ORDER TO CONSERVE CULTURAL VALUES OF HERITAGE BUILDINGS**

### **6.1 Introduction**

This chapter is focused on the findings and discussions of Research Objective 3 or **RO<sub>3</sub>** aiming to identifying how the current **FM** perspective in Malaysia influences the conservation process in order to conserve **CVHB**. Accordingly, this chapter is structured as follows:

- The findings of and analysis is presented, based on the responses from the Expert Interviews which are aimed at **RO<sub>3</sub>**;
- The discussions based on the responses from Expert Interviews and Descriptive Codes; and
- The summary and link of the chapter is included at the end of this section.

### **6.2 Responses from the Expert Interviews**

This section represents the findings and analysis of **RO<sub>3</sub>** in identifying how the current **FM** perspective in Malaysia influences the conservation process in order to conserve **CVHB**. The interview transcripts for the respondents (**R<sub>1</sub> + R<sub>2</sub> + R<sub>3</sub> + R<sub>4</sub> + R<sub>5</sub> + R<sub>6</sub> + R<sub>7</sub> + R<sub>8</sub>**) are analysed using Content Analysis. The Content Analysis will be extracted and brought together into one table that is divided into “respondent identifier”, “interview text”, “interpretation of the underlying meaning”, and “descriptive codes”. Analysis of these interview texts is similar to the previous findings for **RO<sub>2</sub>**. **Table 15** indicates the interview texts and Content Analysis for **RO<sub>3</sub>**.

**Table 15:** Content Analysis for the Expert Interviews for Research Objective 3.

<b>RO<sub>3</sub> : IDENTIFYING HOW THE CURRENT FM PERSPECTIVE IN MALAYSIA INFLUENCES THE CONSERVATION PROCESS IN ORDER TO CONSERVE CVHB</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Strategic: R<sub>1</sub></b>	<p>In Malaysia, <b>FM</b> is still a new thing and progressing, unlike Hong Kong.</p> <p>There is no specific unit for <b>FM</b> in our department. However the practice of <b>FM</b> has been exercised by our department in conserving heritage buildings according to the Act, OUV, Guidelines, and CMP.</p> <p>I hope in future there will be a permanent position of <b>FM</b> which evaluates heritage buildings in our department.</p>	<ul style="list-style-type: none"> <li>- <b>FM</b> in Malaysia is still new and progressing.</li> <li>- There is no <b>FM</b> unit at the strategic level.</li> <li>- <b>FM</b> practice at the strategic level exists in conserving <b>CVHB</b> according to NHA<sub>1</sub>, OUV<sub>2</sub>, GCHB<sub>3</sub>, and CMP<sub>4</sub>.</li> <li>- The respondent is hoping the <b>FM</b> position will exist in future for conserving <b>CVHB</b>.</li> </ul>	<p>1 : <b>NHA - D<sub>1</sub></b>                  2 : <b>OUV - D<sub>2</sub></b>                  3 : <b>GCHB - D<sub>3</sub></b>                  4 : <b>CMP - D<sub>4</sub></b></p>

**Table 15 (continued):** Content Analysis for the Expert Interviews for Research Objective 3.

<b>RO<sub>3</sub> : IDENTIFYING HOW THE CURRENT FM PERSPECTIVE IN MALAYSIA INFLUENCES THE CONSERVATION PROCESS IN ORDER TO CONSERVE CVHB</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Strategic: R<sub>2</sub></b>	<p>There is no <b>FM</b> here. <b>FM</b> should know about the heritage buildings, including what values can be used to conserve heritage buildings, and materials for heritage buildings.</p> <p>In Malaysia, if the building is government owned, the Public Work Department (PWD) is responsible for guarding and maintaining the (heritage) building. Furthermore, some of the government's buildings are monitored by the Property Management Division (PMD) of the Prime Minister's Department. If there is a conservation work concerning a heritage building, the PWD will call us for advice on our heritage knowledge, the materials, and on the decision-making process in heritage conservation. Now the surveyors, engineers, and architects have this knowledge.</p> <p>It is good to have <b>FM</b>, however it depends on the allocation of funding.</p>	<ul style="list-style-type: none"> <li>- There is no <b>FM</b> unit at the strategic level.</li> <li>- The respondent suggested that <b>FM</b> should be knowledgeable in heritage buildings, <b>CVHB</b> and materials used.</li> <li>- The PWD and Prime Minister's Department are responsible for maintaining heritage buildings with the assistance of the Department of Cultural Heritage.</li> <li>- <b>FM</b> is a practice which is exercised by surveyors, architects, and engineers.</li> <li>- The respondent believed it is good to have <b>FM</b> in conserving <b>CVHB</b>, however creating a <b>FM</b> position at the strategic level depends on the financial budget.</li> </ul>	



**Table 15 (continued):** Content Analysis for the Expert Interviews for Research Objective 3.

<b>RO<sub>3</sub> : IDENTIFYING HOW THE CURRENT FM PERSPECTIVE IN MALAYSIA INFLUENCES THE CONSERVATION PROCESS IN ORDER TO CONSERVE CVHB</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Tactical: R<sub>3</sub></b>	<p>Actually, our unit don't have a <b>FM</b> position, however the role and practice of <b>FM</b> already exists.</p> <p>From my opinion, in the Department of Cultural Heritage, the Commissioner of the Heritage is currently regarded as the <b>FM</b>. She is involved in evaluating and conserving heritage buildings according to the Act, OUV, Guidelines, and CMP.</p> <p>I hope in future the post of <b>FM</b> will exist in order to help to conserve heritage buildings, according to <b>FM</b> perspective. Furthermore, <b>FM</b> is needed to understand the future importance of conserving every single heritage building in Malaysia.</p>	<ul style="list-style-type: none"> <li>- There is no <b>FM</b> unit at the tactical level.</li>   <li>- From the respondent's opinion the Commissioner of the Heritage<sub>1</sub> in the Department of Cultural Heritage is currently regarded as the <b>FM</b> because she is involved in evaluating and conserving <b>CVHB</b> according to NHA<sub>2</sub>, OUV<sub>3</sub>, GCHB<sub>4</sub>, and CMP<sub>5</sub>.</li>   <li>- The respondent is hoping the <b>FM</b> position will exist in future to assist the conservation of <b>CVHB</b>.</li> </ul>	<p><b>1 : PEOPLE - FM<sub>1</sub></b></p> <p><b>2 : NHA - D<sub>1</sub></b></p> <p><b>3 : OUV - D<sub>2</sub></b></p> <p><b>4 : GCHB - D<sub>3</sub></b></p> <p><b>5 : CMP - D<sub>4</sub></b></p>

**Table 15 (continued):** Content Analysis for the Expert Interviews for Research Objective 3.

<b>RO<sub>3</sub> : IDENTIFYING HOW THE CURRENT FM PERSPECTIVE IN MALAYSIA INFLUENCES THE CONSERVATION PROCESS IN ORDER TO CONSERVE CVHB</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Tactical: R4</b>	<p>There's no <b>FM</b> in evaluating and conserving heritage building, but I am involved as the evaluator for heritage building.</p> <p>I am assigned as the conservation architect to conserve the physical look, building façade, cultural values for the tangible assets.</p> <p>However, I am not working alone. This work is assisted by historian and urban planner.</p>	<ul style="list-style-type: none"> <li>- There is no <b>FM</b> unit at the tactical level.</li>   <li>- The respondent is a conservation architect involved in conserving the <b>CVHB</b> and is assisted by a historian and urban planner.</li> </ul>	
<b>Operational: R5</b>	<p>We don't have <b>FM</b> here in our unit.</p> <p>However it is good to have <b>FM</b> in future in conserving heritage buildings.</p>	<ul style="list-style-type: none"> <li>- There is no <b>FM</b> unit at the operational level.</li>   <li>- The respondent believed it is good to have <b>FM</b> in conserving <b>CVHB</b>.</li> </ul>	

**Table 15 (continued):** Content Analysis for the Expert Interviews for Research Objective 3.

<b>RO<sub>3</sub> : IDENTIFYING HOW THE CURRENT FM PERSPECTIVE IN MALAYSIA INFLUENCES THE CONSERVATION PROCESS IN ORDER TO CONSERVE CVHB</b>			
Respondent Identifier	Interview Text	Interpretation of the Underlying Meaning	Descriptive Codes
<b>Operational: R<sub>6</sub></b>	The heritage buildings have problems such as parasites and fungi. Therefore, as a statutory body, it is difficult to get a post. We have to wait every 5 years. Now, it is in the process of creating a maintenance unit.	<ul style="list-style-type: none"> <li>- There is no <b>FM</b> unit at the operational level.</li> <li>- The respondent perceived that:-                             <ul style="list-style-type: none"> <li>• it is hard to create any post such as <b>FM</b> at the operational level; and</li> <li>• currently, they are in the process of creating a maintenance unit for heritage building conservation.</li> </ul> </li> </ul>	
<b>Operational: R<sub>7</sub></b>	There is no <b>FM</b> involved. But a conservation architect is involved in the conservation work.	<ul style="list-style-type: none"> <li>- There is no <b>FM</b> unit at the operational level.</li> </ul>	
<b>Operational: R<sub>8</sub></b>	<b>FM</b> is not involved in the execution process. I am more into the conservation work of repairing and maintaining the heritage buildings.	<ul style="list-style-type: none"> <li>- The respondent stated that he is more on the operation and maintenance of a heritage building.</li> </ul>	

### **6.3 Discussion for RO<sub>3</sub>: IDENTIFYING HOW THE CURRENT FM PERSPECTIVE IN MALAYSIA INFLUENCES THE CONSERVATION PROCESS IN ORDER TO CONSERVE CVHB**

The overall findings in **Table 15** indicated that the interview respondents (**R<sub>1</sub> + R<sub>2</sub> + R<sub>3</sub> + R<sub>4</sub> + R<sub>5</sub> + R<sub>6</sub> + R<sub>7</sub> + R<sub>8</sub>**) responded that **FM** does not really exist at the strategic, tactical, or operational level of the organisation. Therefore, **R<sub>1</sub>** and **R<sub>3</sub>** commented that the practice and role of **FM** is performed by The Department of Cultural Heritage, The Ministry of Information Communications and Culture of Malaysia. None of the respondents (**R<sub>1</sub>** or **R<sub>3</sub>**) explained and elaborated further how the **FM** practise is exercised at the strategic level in the conservation process in Malaysia. On the other hand, **R<sub>3</sub>** asserted that the Commissioner of the Heritage in the Department of Cultural Heritage is currently regarded as the **FM** because she is involved in evaluating and conserving **CVHB** according to NHA, OUV, GCHB, and CMP. However, this only a personal views from **R<sub>3</sub>**.

According to literature, the development of **FM** in Malaysia started in the second half the 1990s. The Government of Malaysia has played a major role in the development of **FM** in Malaysia (Pillay, 2002). Since then, Malaysia has placed great focus and emphasis on the development of **FM**, particularly in the public sector (Kamaruzzaman & Ahmad Zawawi, 2009), property and asset management (Idris, 2010); social enterprise (Tobi, 2010; Kassim and Hudson, 2006) and elderly peoples' homes (Sulaiman, 2012).

Therefore, the reality of **FM** in Malaysia is that it is in its infancy and fragmented due to limited knowledge and awareness of its importance (Noor and Pitt, 2010; Lee 2009). The awareness on the vitality of **FM** is not really discussed even though initiatives and approaches to undertake it have been done by the public and private sector. For instance, Ong (2009) stated that "Presently, the adoption and practice of **FM** is predominately focused on Multinational Corporations (MNCs) and Malaysian Public Works Department (PWD)". Hence, **FM** practice is exercised by The PWD's Building Branches in maintenance management of government buildings, offices, schools and hospital; health and safety; security; and operation management. This was briefly mentioned by **R<sub>2</sub>** concerning the PWD' practice of maintaining the heritage buildings which are owned by the government.

But yet, the **FM** position is not visibly present even in the PWD itself. However, **FM** practice in Malaysia is exercised by other professionals such as building surveyors, architects, and engineers. Hence, due to this, the responses by **R<sub>1</sub>** and **R<sub>3</sub>** are perceived authentic because they have mentioned that **FM** practice is exercised even though the position of **FM** does not permanently appear in the organisation.

Nevertheless, even though the permanent position of **FM** does not exist in the department, **R<sub>1</sub>** has stated that the practice of **FM** is applied in conserving **CVHB** in accordance with four vital documents of NHA, OUV, GCHB, and CMP. These documents (**D<sub>1</sub> + D<sub>2</sub> + D<sub>3</sub> + D<sub>4</sub>**) will be discussed in a later section which is **RO<sub>4</sub>** of developing the theoretical framework of **CVHB - FM**.

On the other hand, **R<sub>3</sub>** perceived that the Commissioner of the Department of Cultural Heritage, Ministry of Information Communications and Culture of Malaysia acts as the **FM** practitioner or **FM<sub>1</sub> - PEOPLE** because she evaluates and conserves **CVHB** in Malaysia. However, **R<sub>3</sub>** comprehended that this a personal view about the **FM** practice in Malaysia based on her role and responsibilities.

Like any other country in South East Asia and the Asia Pacific region, **FM** in Malaysia is described as a second wave market by the **FM** industry (Moore and Finch, 2004). Thence, the practice of **FM** has been undertaken by the public and private sector in building management (Syed Mustafa and Adnan, 2008); housing management (Che-Ani *et al.*, 2010); social enterprise (Kassim and Hudson, 2006; Tobi, 2010); elderly people's homes (Sulaiman, 2012); Multinational Corporations (MNCs) and by Malaysia's Public Works Department (PWD) in the maintenance management of government buildings, offices, schools and hospitals; health and safety; security; and operation management (Ong, 2009).

However, none of the **FM** developments are focused on conserving **CVHB** in Malaysia. This may be due to inadequate knowledge of **FM** as a multidisciplinary discipline that advocates the process of conserving **CVHB**. Hence, the importance and significance of **FM** in advocating the conservation process of **CVHB** in Malaysia is vital as an enabler for sustaining the authenticity of heritage buildings for national identity and the tourism industry that cannot be neglected and dismissed. This was agreed by the respondents who were hoping to have **FM** practitioners who will advocate the conservation process. Furthermore, **R<sub>2</sub>** added that **FM** practitioners should have the knowledge of cultural heritage, the cultural values, and also materials used in heritage building conservation. These discussions and responses will be further elaborated in the next chapter of **RO<sub>4</sub>**.

None of the respondents (**R<sub>1</sub> + R<sub>2</sub> + R<sub>3</sub> + R<sub>4</sub> + R<sub>5</sub> + R<sub>6</sub> + R<sub>7</sub> + R<sub>8</sub>**) from the strategic, tactical, or operational level provided expert views on how the current **FM** perspective of **PEOPLE - FM<sub>1</sub>**, **PLACE - FM<sub>2</sub>**, **PROCESS - FM<sub>3</sub>**, and **TECHNOLOGY - FM<sub>4</sub>** influence the conservation process of **CVHB**. This might be due of the infancy and lack of knowledge pertaining to **FM** practice even though the development and initiative of **FM** has been undertaken.

To conclude, the current **FM** perspective in Malaysia in the conservation of **CVHB** is not yet fully undertaken and practised at the strategic, tactical, or operational level of the organisation. This is because of the ignorance of **FM** as a multidisciplinary approach that can advocate and influence the conservation of **CVHB** in Malaysia.

#### **6.4 Summary and Link**

This chapter has presented the data collection, analysis, and key findings for **RO<sub>3</sub>** in identifying how the current **FM** perspective in Malaysia influences the conservation process in order to conserve **CVHB**. A series of eight Expert Interviews have been conducted at the strategic, tactical, and operational level from conservation practitioners. Content Analysis is used to analyse the Expert Interviews which is aiming to achieve the objective.

The next section will be the findings, analysis, and discussion for **RO<sub>4</sub>** in developing a theoretical framework for conserving **CVHB** in Malaysia from the **FM** perspective.

## **CHAPTER 7: DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CULTURAL VALUES OF HERITAGE BUILDINGS IN MALAYSIA FROM A FM PERSPECTIVE**

### **7.1 Introduction**

This chapter is focused on the analysis of Research Objective 4 or **RO<sub>4</sub>** in developing a theoretical framework for conserving **CVHB** in Malaysia from **FM** perspective. This chapter is structured according to:

- The findings of and analysis, based on the responses from the Expert Interviews which are aimed at **RO<sub>4</sub>**.
- The discussions based on the responses from Expert Interviews and the Document Reviews.
- The development of a theoretical framework for **CVHB - FM**.
- The summary of the chapter and link at the end of this section.

### **7.2 Responses from the Expert Interviews**

This section represents the findings of **RO<sub>4</sub>** which is developing a theoretical framework for **CVHB** from **FM** perspective. In this series of eight Expert Interviews (**R<sub>1</sub> + R<sub>2</sub> + R<sub>3</sub> + R<sub>4</sub> + R<sub>5</sub> + R<sub>6</sub> + R<sub>7</sub> + R<sub>8</sub>**), the participants will be asked to provide Expert Views on eight criteria of **CVHB** which are **SOCIAL-CVHB<sub>1</sub>**; **ECONOMIC-CVHB<sub>2</sub>**; **POLITIC-CVHB<sub>3</sub>**; **HISTORIC-CVHB<sub>4</sub>**; **AESTHETICAL - CVHB<sub>5</sub>**; **SCIENTIFIC - CVHB<sub>6</sub>**; **AGE -CVHB<sub>7</sub>**; and **ECOLOGICAL-CVHB<sub>8</sub>** which will link with **FM** perspective of **PEOPLE - FM<sub>1</sub>**; **PLACE - FM<sub>2</sub>**; **PROCESS - FM<sub>3</sub>**; and **TECHNOLOGY - FM<sub>4</sub>**.

Similar to **RO<sub>2</sub>** (in **Chapter 5**); **RO<sub>3</sub>** (in **Chapter 6**); **RO<sub>4</sub>** also will be using Content Analysis to analyse the interview text which interpret the underlying meaning of the interview texts and are then coded as a descriptive code in order to be placed in the theoretical framework. **Table 16** illustrates the Content Analysis for the Expert Interviews for Research Objective 4.

**Table 16:** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Strategic: R<sub>1</sub></b>	<p>People in <b>FM</b> managed the heritage buildings that fall under the cultural values according to the Act, OUV, Guidelines, and CMP. Heritage buildings are the responsibility of the Commissioner of Heritage. In conjunction with the documents, <b>FM</b> has to be involved in conserving heritage buildings according to the Cultural Values.</p> <p>In Malaysia, Cultural Values are stated in the Act and OUV. For instance, Social values of the place and space in the heritage building indicates the history but not memory. It is “an event” that needs to be shared with all in the community and also as a tourist attraction to explore the place.</p>	<ul style="list-style-type: none"> <li>- The respondent provided views on <b>FM</b> perspective and <b>CVHB</b> as follows:-               <ul style="list-style-type: none"> <li>• <b>PEOPLE<sub>1</sub></b>:-                   <ul style="list-style-type: none"> <li>- managing the heritage buildings according to the National Heritage Act, OUV, GCHB, and CMP;</li> <li>- the Commissioner of Heritage<sub>2</sub> is responsible for the conservation of heritage buildings in Malaysia;</li> <li>- are knowledgeable in <b>CVHB</b>, historic values<sub>3</sub>; materials and diagnosis of a heritage building.</li> </ul> </li> </ul> </li> </ul>	<p><b>1 : PEOPLE - FM<sub>1</sub></b></p> <p><b>2 : PEOPLE - FM<sub>1</sub></b></p> <p><b>3 : HISTORIC - CVHB<sub>4</sub></b></p>



**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

RO <sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE			
Respondent Identifier	Interview Text	Interpretation of the Underlying Meaning	Descriptive Codes
<p><b>Strategic: R<sub>1</sub> (continued)</b></p>	<p>For instance, the <i>Merdeka</i> Stadium in Kuala Lumpur was a place that held important event for Malaysia and was where Independence Day was declared in 1957. It does relate with the morphology of the place, “events” and why people come and visit the place.</p> <p>In my opinion, <b>FM</b> should have the knowledge about the history of the building, materials and structure of the building, and how to diagnose a heritage building.</p> <p>Actually <b>FM</b> should be included in the preliminary phase of evaluating and conserving a heritage building. He or she should have a background of building conservation, about maintenance of a heritage building, and taking part in a conservation plan.</p>	<ul style="list-style-type: none"> <li>• <b>PLACE<sub>4</sub></b>:- <ul style="list-style-type: none"> <li>- is linked to social<sub>5</sub> and historic<sub>6</sub> that indicates the “event” that need to be shared and tourist attraction spot.</li> </ul> </li> <li>• <b>PROCESS<sub>7</sub></b> :- <ul style="list-style-type: none"> <li>- is the knowledge in conservation, operation and maintenance of heritage buildings and includes diagnosis.</li> </ul> </li> <li>• <b>TECHNOLOGY<sub>8</sub></b>:- <ul style="list-style-type: none"> <li>- materials used in conserving a heritage buildings.</li> </ul> </li> </ul>	<p><b>4 : PLACE - FM<sub>2</sub></b>  <b>5 : SOCIAL - CVHB<sub>1</sub></b>  <b>6 : HISTORIC - CVHB<sub>4</sub></b></p> <p><b>7 : PROCESS - FM<sub>3</sub></b></p> <p><b>8 : TECHONOLOGY - FM<sub>4</sub></b></p>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Strategic: R<sub>1</sub> (continued)</b>	<p><b>FM</b> should know the materials and technique, lime or plaster, and the facade, the technology, and why it uses terracotta roofs. Why suddenly, its roof changed? Is it because of lack of resources?</p> <p><b>FM</b> should know about the history of the building. <b>FM</b> has to have knowledge in evaluating and conserving heritage building and its values. This will bridge the gap of knowledge and awareness of the importance and significance of a heritage building. However it has to be in accordance with the Act, OUV, Guidelines, and CMP.</p> <p>The position of <b>FM</b> has to be in place at the beginning phase of evaluating and conserving a heritage building. <b>FM</b> has to know about the preservation, conservation, and maintenance of the building. <b>FM</b> should know the technique and materials of the building.</p>		

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Strategic: R<sub>1</sub> (continued)</b>	<p>FM has to be in place here at the Department of Cultural Heritage in order to sustain the heritage buildings in Malaysia.</p>	<ul style="list-style-type: none"> <li>- The respondent is hoping the <b>FM</b> position will exist in future to assist the conservation of <b>CVHB</b> from the preliminary phase of the conservation process.</li> </ul>	
<b>Strategic: R<sub>2</sub></b>	<p>For us, the cultural values are very wide. We combined all of the cultural values. All cultural values are affiliated with history.</p> <p>History can be seen in the discovery of ceramic objects. It is connected to the history. Ceramics are originally from China. Chinese traders came to trade through the Malacca Straits and brought the ceramics.</p> <p>In fact, the cultural values are to sustain the integrity of a building, its facade, and the building elements. It involves all cultural values.</p>	<ul style="list-style-type: none"> <li>- The respondent provided views on <b>FM</b> perspective and <b>CVHB</b> as follows:-                             <ul style="list-style-type: none"> <li>• All eight classifications of <b>CVHB<sub>1</sub></b> are combined to sustain the authenticity and integrity of heritage buildings.</li> <li>• <b>PEOPLE<sub>2</sub></b>:-                                     <ul style="list-style-type: none"> <li>- assist and advocates the conservation of <b>CVHB</b> to sustain the authenticity and integrity of heritage buildings in Malaysia.</li> </ul> </li> </ul> </li> </ul>	<p><b>1 : CVHB (1-8)</b></p> <p><b>2 : PEOPLE - FM<sub>1</sub></b></p>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Strategic: R<sub>2</sub> (continued)</b>	<p>The historic and social values cannot be separated. They are used to sustain the identity of the building, safeguarding, preserve, and conserve it.</p> <p>Why do we need to gazette the building? Why do we need <b>FM</b>? Because it is for the record especially to sustain the integrity of the building. It creates the authenticity of cultural values and the integrity of the building. Because it is heritage, as a record protected by the law, this constantly sustains the integrity, cultural value and the authenticity that are merged into the integrity.</p> <p>Values such as social, historical, aesthetic, scientific, potential to educate, diversity, and richness, extraordinariness, and archaeology are contained in the Act. The economic values are also included and refer to the cultural values.</p>	<ul style="list-style-type: none"> <li>• <b>PLACE<sub>3</sub></b> : -             <ul style="list-style-type: none"> <li>- indicates the national identity which illuminates the historic<sub>4</sub> and social values<sub>5</sub>.</li> </ul> </li> </ul>	<p><b><sub>3</sub> : PLACE - FM<sub>2</sub></b>  <b><sub>4</sub> : HISTORIC - CVHB<sub>4</sub></b>  <b><sub>5</sub> : SOCIAL - CVHB<sub>1</sub></b></p>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Strategic: R<sub>2</sub> (continued)</b>	<p>For example, the Rafflesia flower can only be found in the <i>Belum</i> Forest. The uniqueness in its kind and class, has classified the flower as natural heritage.</p> <p>Determining the significance of heritage is important. It can broaden the perspective of cultural values.</p>		
<b>Tactical: R<sub>3</sub></b>	<p>The vital thing is who is <b>FM</b>? It is depends on the training background, as he or she should know everything. It will help him or her to justify the <b>CVHB</b>.</p> <p><b>FM</b> should be in place at the preliminary phase of evaluating and conserving a heritage building according to the Act, OUV, Guidelines, and CMP. He should work with the experts such as historians and archaeologists to gather collective opinions about conserving the heritage building.</p>	<ul style="list-style-type: none"> <li>- The respondent provided views on <b>FM</b> perspective and <b>CVHB</b> as follows:- <ul style="list-style-type: none"> <li>• <b>PEOPLE<sub>1</sub></b> :- <ul style="list-style-type: none"> <li>- Knowledgeable in <b>CVHB</b>; National Heritage Act: OUV; GCHB; and CMP;</li> <li>- <b>FM</b> roles, teamwork with a conservation unit, responsible for the external factors of vandalism, tourist attraction, and caring capacities.</li> </ul> </li> </ul> </li> </ul>	<b><sub>1</sub> : PEOPLE - FM<sub>1</sub></b>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Tactical: R<sub>3</sub> (continued)</b>	<p>In our unit, a heritage building is conserved according to the Act, OUV, Guidelines, and CMP.</p> <p>As I mentioned before, there is no specific position for <b>FM</b> here. However the practice of <b>FM</b> has been exercised in conserving the heritage building via collective agreement by the Commissioner and experts in a meeting.</p> <p>Now, there is no <b>FM</b> involved in the process of conservation. However, it is good to have an <b>FM</b> position for someone who has knowledge about heritage buildings especially someone who will take part in evaluation and conservation process.</p> <p>In my opinion, people is the <b>FM</b> manager itself, that has the <b>FM</b> roles, teamwork with conservation unit, in conserving heritage building and responsible to the external factors of vandalism, tourist attraction and also caring capacities.</p>	<ul style="list-style-type: none"> <li>- Knowledgeable in heritage building in Malaysia.</li> <li>• <b>PLACE<sub>2</sub></b> :-             <ul style="list-style-type: none"> <li>- indicates the historic<sub>3</sub>; event; memory; and tourist attraction.</li> </ul> </li> <li>• <b>PROCESS<sub>4</sub></b> :-             <ul style="list-style-type: none"> <li>- in conservation to maintain the aesthetic values<sub>5</sub> of heritage buildings components such as walls, windows, and the roof.</li> </ul> </li> <li>• <b>TECHNOLOGY<sub>6</sub></b>:-             <ul style="list-style-type: none"> <li>- materials used in conserving heritage buildings.</li> </ul> </li> </ul>	<p><b>2 : PLACE - FM<sub>2</sub></b>  <b>3 : HISTORIC - CVHB<sub>4</sub></b></p> <p><b>4 : PROCESS - FM<sub>3</sub></b>  <b>5 : AESTHETIC - CVHB<sub>5</sub></b></p> <p><b>6 : TECHNOLOGY - FM<sub>4</sub></b></p>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Tactical: R<sub>3</sub> (continued)</b>	<p>The place illuminates the memory, events, and tourist attractions of a heritage building. The “event” is associated with an important “event” like a battlefield and a colonial place.</p> <p>Hence, the history is vital in order to produce information for future generations. However, the “economy (value)” is popular by product. Sometimes tourists can disturb the cultural values of a heritage building such as by their breathing.</p> <p>The process is the method as to how to conserve and maintain the aesthetics of a heritage building. The aesthetic value is based on conservation principles, such as maintaining the roof, walls, and windows of a heritage building.</p> <p>Technology is the technology of material and techniques to conserve the heritage building. The older the material, the more difficult to maintain.</p>		

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Tactical: R<sub>3</sub> (continued)</b>	<p>Actually, all criteria of cultural values are important in the conservation process. Social values could mean a lot and is associated with history. On the other hand the economic value is more a popular by “product”. Meanwhile age reflects the existence of the heritage building and ecological refers to the overall landscape of the heritage building.</p> <p>A <b>FM</b> manager is fully responsible for the heritage building that will be conserved. He should be involved in the listing process of evaluating and conserving the heritage building. He has to have a background of the history of the heritage building and knows the Act, OUV, Guidelines, and CMP.</p> <p>A <b>FM</b> manager has to be in position before a heritage building is established and becomes heritage. He has to be knowledgeable in the history of heritage buildings and all Cultural Values.</p>	<ul style="list-style-type: none"> <li>- All eight classifications of <b>CVHB</b> <sub>7</sub> are important in the conservation process.</li> <li>- Social<sub>8</sub>, economic<sub>9</sub>, age<sub>10</sub>, and ecological<sub>11</sub> are used in conserving heritage buildings.</li> <li>- The respondent asserted that <b>FM</b> have to be positioning before a heritage building is endorsed as heritage and <b>FM</b> have to justify the significance of conserving <b>CVHB</b> according to <b>FM</b> perspective.</li> </ul>	<p><b>7 : CVHB</b> <sub>(1-8)</sub></p> <p><b>8 : SOCIAL - CVHB</b><sub>1</sub></p> <p><b>9 : ECONOMIC - CVHB</b><sub>2</sub></p> <p><b>10 : AGE - CVHB</b><sub>7</sub></p> <p><b>11 : ECOLOGICAL - CVHB</b><sub>8</sub></p>



**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Tactical: R<sub>3</sub> (continued)</b>	A FM manager has to justify the importance and the significance of conserving CVHB based on FM perspective.		
<b>Tactical: R<sub>4</sub></b>	<p>Heritage in Malacca has long existed. However, as a conservation architect, the criterion that I used is historic value for heritage monument and building conservation.</p> <p>For me, personally, what is important is the outlook, physical condition, facade, history and era, material used, the design, and whether it is still intact or not.</p> <p>From this point, there will be a slight impact on other cultural values such as social, economy, and other values.</p> <p>Personally, for me, I will go with architectural views, such as the <i>Stadhuys</i> I see in terms of historical and architectural values.</p>	<p>- The respondent stated that:-</p> <ul style="list-style-type: none"> <li>• personally, only historic value<sub>1</sub> is vital in conserving CVHB in Malacca;</li> <li>• architectural aspects such as the façade and physical condition of a heritage building is applied in conserving CVHB; and</li> <li>• currently, there is no maintenance for sustaining the heritage building in Malacca and repair work is conducted when damages has happened.</li> </ul>	<b>1 : HISTORIC - CVHB<sub>4</sub></b>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Tactical: R<sub>4</sub> (continued)</b>	<p>The conservation work is to a process that involves identifying the history of the building, detailed reports, submission and approval of the work, dilapidation, archaeological report and documentation, identifying the material and technology used and producing HABS Drawings I, II, and III.</p> <p>Actually, we never checked and maintained the heritage buildings. If there is any damage we will repair the building.</p> <p>It is good to have <b>FM</b> to maintain the buildings. However, it depends on the knowledge that he or she has.</p>	<ul style="list-style-type: none"> <li>- The respondent provided views on <b>FM</b> perspective as follows:-               <ul style="list-style-type: none"> <li>• <b>PROCESS<sub>2</sub></b>:-                   <ul style="list-style-type: none"> <li>- in conservation this includes identifying a heritage building and documentation of the conservation work.</li> </ul> </li> <li>• <b>TECHNOLOGY<sub>3</sub></b>:-                   <ul style="list-style-type: none"> <li>- materials used in conserving a heritage buildings.</li> </ul> </li> </ul> </li> <li>- The respondent agreed that <b>FM</b> is needed to maintain a heritage building, however it depends on the knowledge the person has.</li> </ul>	<p><b><sub>2</sub> : PROCESS - FM<sub>3</sub></b></p> <p><b><sub>3</sub> : TECHNOLOGY - FM<sub>4</sub></b></p>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

RO <sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE			
Respondent Identifier	Interview Text	Interpretation of the Underlying Meaning	Descriptive Codes
<b>Operational: R<sub>5</sub></b>	<p>Our department is responsible for the conversation of heritage buildings, implementing planning, and preservation works.</p> <p>All Cultural Values are used in the conservation works. They are used to prolong the life-span of the heritage buildings. The Cultural Values are used in order to sustain the heritage values of the building.</p> <p>In conserving buildings like the <i>Stadhuys</i> building, a preliminary report is used to study the background of the heritage building. The <i>Stadhuys</i> is a big and complete building. It was built by the Dutch in 1645... about 500 years ago.</p> <p>The age of the building is old and it has decayed. It needs conservation work and financial support. The practice of conservation and preservation is needed to sustain the physical condition of the heritage building.</p>	<ul style="list-style-type: none"> <li>- The respondent provided views on <b>FM</b> perspective and <b>CVHB</b> as follows:-               <ul style="list-style-type: none"> <li>• <b>PEOPLE<sub>1</sub></b>:-                   <ul style="list-style-type: none"> <li>- is about individuals and consists of leadership and a sense of love for heritage buildings in Malaysia.</li> </ul> </li> <li>• <b>PLACE<sub>2</sub></b> : -                   <ul style="list-style-type: none"> <li>- indicates the age<sub>3</sub>; political<sub>4</sub>; social<sub>5</sub>; aesthetic<sub>6</sub>; and historic values<sub>7</sub>.</li> </ul> </li> <li>• <b>PROCESS<sub>8</sub></b> :-                   <ul style="list-style-type: none"> <li>- includes conservation and preservation to sustain the physical condition of a heritage building which includes the roof, windows, and walls of a heritage buildings.</li> </ul> </li> </ul> </li> </ul>	<p><b>1 : PEOPLE - FM<sub>1</sub></b></p> <p><b>2 : PLACE - FM<sub>2</sub></b>  <b>3 : AGE - CVHB<sub>7</sub></b>  <b>4 : POLITICAL - CVHB<sub>3</sub></b>  <b>5 : SOCIAL - CVHB<sub>1</sub></b>  <b>6 : AESTHETIC - CVHB<sub>5</sub></b>  <b>7 : HISTORIC - CVHB<sub>4</sub></b></p> <p><b>8: PROCESS - FM<sub>3</sub></b></p>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Operational: R<sub>5</sub> (continued)</b>	<p>Hence, the evaluation aspects of cultural, social, aesthetic, and historic values are vital.</p> <p>It needs to have a study of the roof, walls, and windows. For instance, a heritage roof reflects the value of history which comes from the records.</p> <p>We used the technology or materials to conserve heritage building. If we have difficulties in prolonging the life-span of the buildings, we will send sample to the MINT or USM for the composition of the materials. Their expertise will help to sustain the scientific value of the building.</p> <p>Actually, all of our buildings use the same conservation methods. The techniques and technology of maintaining a heritage building is vital in order to sustain the originality and physical condition of the heritage building.</p>	<ul style="list-style-type: none"> <li>• <b>TECHNOLOGY<sub>9</sub></b>:-             <ul style="list-style-type: none"> <li>- materials used in maintaining the heritage building's physical condition; and</li> <li>- experts will assist in sustaining the scientific values<sub>10</sub> of a heritage building's physical condition.</li> </ul> </li> </ul>	<p><b><sub>9</sub> : TECHNOLOGY - FM<sub>4</sub></b></p> <p><b><sub>10</sub> : SCIENTIFIC - CVHB<sub>6</sub></b></p>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Operational: R<sub>5</sub> (continued)</b>	<p>For instance, if a beam is decaying, we will try to conserve and preserve the original as best we can.</p> <p>Like I mentioned before, the <i>Stadhuys</i> building is the first building built in Malacca in the year 1645. It has a high historical value. It has the most visits from tourists from the Netherlands. It is a tourist attraction.</p> <p>Furthermore, it has a political value because it was once the centre for administration in the colonial era in Malaysia.</p> <p>In my opinion, <b>FM</b> is about individual leadership, competency, efficiency, honesty, the process of monitoring, and a sense of love for heritage buildings in Malaysia.</p>		

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Operational: R<sub>6</sub></b>	<p>Actually, all cultural values are important. Social value is important in preserving the historical facts of the country or state.</p> <p>Historical value is affiliated to social value. Most of the heritage buildings in Malacca represent various communities. Therefore, it is vital to safeguard and conserve the heritage building. This is because it is the people's traditions.</p> <p>Political value is also affiliated to social value. For example, in Malacca if the Malays want to set up a museum for themselves, other races also want to set up a museum. This is equality or 1 Malaysia's concept of equal rights.</p> <p>Economic value represents the opportunity to contractors and consultants in the field of conservation. That is my personal view. Is it right?</p>	<ul style="list-style-type: none"> <li>- The respondent provided views on <b>CVHB</b> and <b>FM</b> as follows:- <ul style="list-style-type: none"> <li>• All <b>CVHB<sub>1</sub></b> such as social<sub>2</sub>; historic<sub>3</sub>; economic<sub>4</sub>; political<sub>5</sub>; aesthetic<sub>6</sub>; scientific<sub>7</sub>; and ecological<sub>8</sub> are vital in conserving the heritage buildings.</li> <li>• <b>PEOPLE<sub>9</sub></b> : - <ul style="list-style-type: none"> <li>- Knowledgeable in <b>CVHB</b>; the process and instruments for heritage building conservation.</li> </ul> </li> <li>• <b>PLACE<sub>10</sub></b> : - <ul style="list-style-type: none"> <li>- indicates the functionality of the space and its use as a tourist attraction.</li> </ul> </li> </ul> </li> </ul>	<p><b>1 : CVHB<sub>(1-8)</sub></b>  <b>2 : SOCIAL - CVHB<sub>1</sub></b>  <b>3 : HISTORIC - CVHB<sub>4</sub></b>  <b>4 : ECONOMIC - CVHB<sub>2</sub></b>  <b>5 : POLITICAL - CVHB<sub>3</sub></b>  <b>6 : AESTHETIC - CVHB<sub>5</sub></b>  <b>7 : SCIENTIFIC - CVHB<sub>6</sub></b>  <b>8 : ECOLOGICAL - CVHB<sub>8</sub></b></p> <p><b>9 : PEOPLE - FM<sub>1</sub></b></p> <p><b>10 : PLACE – FM<sub>2</sub></b></p>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Operational: R<sub>6</sub> (continued)</b>	<p>Aesthetic value refers to the history. If the <i>Stadhuys</i> building was not built, we would never have known that the Dutch were here. This aesthetic value can be used as a historical reference. In terms of art, we can also see the famous architecture of the building.</p> <p>Scientific value is about the research and development of technology. A study on maintenance should be documented and recorded as references, so people can see it.</p> <p>Ecological value for instance, the locality of St. Paul's Hill cannot stand by itself. It is related to the <i>Stadhuys</i> building and to the environment connected to the building.</p> <p>Every 5 years we were allocated to the maintenance of the building. If there is any severe damage we will do the repair work.</p>	<ul style="list-style-type: none"> <li>• <b>PROCESS<sub>11</sub></b> :-               <ul style="list-style-type: none"> <li>- includes conserving the roof, windows, and walls of a heritage building through a method of statement.</li> </ul> </li> <li>• <b>TECHNOLOGY<sub>12</sub></b>:-               <ul style="list-style-type: none"> <li>- includes the latest instruments in conserving the heritage buildings physical condition.</li> </ul> </li> </ul>	<p><b>11 : PROCESS - FM<sub>3</sub></b></p> <p><b>12 : TECHNOLOGY - FM<sub>4</sub></b></p>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Operational: R<sub>6</sub> (continued)</b>	<p>Besides knowledge on the eight values, one needs to know the latest technologies, humidity control of the building, and the latest instruments for building conservation.</p> <p>Place is affiliated to the functionality. Previously, the functionality was an administration office; there was a transition change to a space for visitors. The functions have changed the internal landscape.</p> <p>The existing roof, windows, and wall are maintained and monitored through the method statement. This endorsed by the conservator involved in the conservation works.</p>		



**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Operational: R<sub>7</sub></b>	<p>A heritage building is evaluated via the building's history, physical aspects, the design, architectural aspect, and the age of the building which has to be over 50 years old.</p> <p>Although a building has modern architecture, if it has a history, so we will conserve it under the Enactment of Conservation and Restoration of Cultural Heritage, 1988. This enactment is the sub-section under the Heritage Act.</p> <p>Usually, the conservation work is done by the conservators and contractors who have been appointed. These conservators and contractors were selected through by experiences.</p> <p>Actually, PERZIM has to produce the building materials and guidelines. For example, the <i>Stadhuys</i> used lime cement and plaster, which we mixed it by ourselves, and we do dilapidation study, and we test the durability for the cement plaster at the site, for a month or two.</p>	<ul style="list-style-type: none"> <li>- The respondent provided views on <b>CVHB</b> and <b>FM</b> as follows:- <ul style="list-style-type: none"> <li>• Historic<sub>1</sub> and age value<sub>2</sub> are used in accordance with the National Heritage Act in conserving the heritage buildings in Malacca.</li> <li>• <b>PROCESS<sub>3</sub></b> :- <ul style="list-style-type: none"> <li>- includes conserving the roof, windows, and walls of a heritage building through a the heritage building guidelines.</li> </ul> </li> <li>• <b>TECHNOLOGY<sub>4</sub></b>:- <ul style="list-style-type: none"> <li>- includes the materials and techniques of conserving the roof, windows, and walls of a heritage building.</li> </ul> </li> </ul> </li> </ul>	<p><b>1 : HISTORIC - CVHB<sub>4</sub></b>  <b>2 : AGE - CVHB<sub>7</sub></b></p> <p><b>3 : PROCESS - FM<sub>3</sub></b></p> <p><b>4 : TECHNOLOGY - FM<sub>4</sub></b></p>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

RO <sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE			
Respondent Identifier	Interview Text	Interpretation of the Underlying Meaning	Descriptive Codes
<b>Operational: R<sub>7</sub> (continued)</b>	<p>In conserving the roof, we have to bring down the roof, wash it, and spray it with chemicals to prevent mould. In conserving the <i>Stadhuys</i> roof we will build temporary roof. The S shape roof is from the Netherlands and purchased in the Indonesian market.</p> <p>Most of the heritage building is old, and the walls are mouldy. We will use technology in scraping all the old plaster on the bricks; drying them using Cocon techniques; and then tested for the endurance of the material.</p> <p>We conserved the windows according to the type and size. For instance, <i>resak</i> wood is used for conservation. We will mortise the damaged window. An archaeology and dilapidation study is needed to find the structure of the building and for which material should be used.</p>		

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Operational: R<sub>8</sub></b>	<p>I do not go through the screening process. It has been done by the Department of Cultural Heritage in identifying the heritage building. I'm just the execution part. I am more on the design and built project and the Department is the funder.</p> <p>There is a standard work list of what is to be implemented which is provided by the Department. The evaluation of the damages and the conservation approaches is according to the guidelines.</p> <p>Actually, conserving a roof is the hardest part to do. Every time we bring down and clean a roof, 20 % to 30% will crack and will be damaged. The industrial market does not support the conservation process. We have issues in purchasing roofs in the market.</p>	<ul style="list-style-type: none"> <li>- The respondent provided views on <b>CVHB</b> and <b>FM</b> as follows:-               <ul style="list-style-type: none"> <li>• Age<sub>1</sub>, historic<sub>2</sub>, and aesthetics value<sub>3</sub> are used with accordance to the National Heritage Act in conserving the heritage buildings in Malacca.</li> <li>• <b>PROCESS<sub>4</sub></b> :-                   <ul style="list-style-type: none"> <li>- includes conserving the roof, windows, and walls of a heritage building through the heritage building guidelines.</li> </ul> </li> </ul> </li> </ul>	<p><b>1 : AGE - CVHB<sub>7</sub></b>  <b>2 : HISTORIC - CVHB<sub>4</sub></b>  <b>3 : AESTHETIC - CVHB<sub>5</sub></b></p> <p><b>4 : PROCESS - FM<sub>3</sub></b></p>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Operational: R<sub>8</sub> (continued)</b>	<p>We don't really have difficulties in conserving the wall. However, the walls always have a wetness and dampness problem due to the weather. However, by doing the monitoring, the degree of wetness is solved.</p> <p>The windows are still in good condition. If there are any damaged window sills we will use the filler to fill them up.</p> <p>In my opinion, I should be given a chance to participate in the beginning of the process of conservation. I have not given a space to take part in the decision-making process as I only do the execution part.</p> <p>I should be included as part of the team in the evaluation process so I can do the dilapidation study, work scope, the costs, and the time-frame of the project.</p>	<ul style="list-style-type: none"> <li>• <b>TECHNOLOGY<sub>5</sub></b>:-               <ul style="list-style-type: none"> <li>- includes the materials and techniques for the monitoring the wall dampness.</li> </ul> </li> <li>- The respondent has outline some problems occurring in conserving a heritage buildings in Malaysia. The problems are as follows:-               <ul style="list-style-type: none"> <li>• 20-30% of the roof will cracked and damaged when it is brought down for conservation;</li> <li>• The industrial market does not support heritage roof making;</li> <li>• Skilled and trained workers in conservation are hard to find; and</li> <li>• Materials for conservation such as lime and slick lime are hard to find and have to be ordered specially.</li> </ul> </li> </ul>	<b><sub>5</sub> : TECHNOLOGY - FM<sub>4</sub></b>

**Table 16 (continued):** Content Analysis for the Expert Interviews for Research Objective 4.

<b>RO<sub>4</sub> : DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE</b>			
<b>Respondent Identifier</b>	<b>Interview Text</b>	<b>Interpretation of the Underlying Meaning</b>	<b>Descriptive Codes</b>
<b>Operational: R<sub>8</sub> (continued)</b>	<p>Administrators and policy makers, have their own specific areas. As for me, on the ground, these things are matters for me. The top-management should consider. this</p> <p>Actually before touching a heritage building, do you have materials? Special orders? Skills and traditional workers? It is hard to find materials such as lime. Slick lime is not suitable actually. Due to this, the values of age, historic, and aesthetic will be lost.</p> <p><b>FM</b> should be used in order to maintain the building. Periodical maintenance is needed. There is no maintenance for heritage buildings in Malaysia.</p>	<p>- The respondent has outlined some suggestions in conserving heritage buildings in Malaysia. The suggestions are as follows:-</p> <ul style="list-style-type: none"> <li>• An appointed conservator has to be included in decision-making when conserving <b>CVHB</b> in Malaysia; and</li> <li>• <b>FM</b> should be included in the periodical maintenance of heritage buildings in Malaysia.</li> </ul>	

### 7.3 Summarisation of Descriptive Codes from Expert Interviews for RO<sub>4</sub>

Table 16 in Section 7.2 indicates the responses from the Expert Interviews for RO<sub>4</sub>. Therefore for the purpose of mapping the research framework, this section has summarised the Descriptive Codes from Expert Interviews for RO<sub>4</sub>. Table 17 indicates the display for the summarisation of Descriptive Codes for RO<sub>4</sub>.

**Table 17:** Summarisation of Descriptive Codes for RO<sub>4</sub>.

Respondent Identifier	Descriptive Codes											
	CVHB <sub>1</sub>	CVHB <sub>2</sub>	CVHB <sub>3</sub>	CVHB <sub>4</sub>	CVHB <sub>5</sub>	CVHB <sub>6</sub>	CVHB <sub>7</sub>	CVHB <sub>8</sub>	FM <sub>1</sub>	FM <sub>2</sub>	FM <sub>3</sub>	FM <sub>4</sub>
R <sub>1</sub>	X	-	-	XX	-	-	-	-	XX	X	X	X
R <sub>2</sub>	XX	X	X	XX	X	X	X	X	X	X	-	-
R <sub>3</sub>	X	X	X	X	X	X	X	X	X	X	X	X
R <sub>4</sub>	-	-	-	X	-	-	-	-	-	-	X	X
R <sub>5</sub>	X		X	X	X	X	X		X	X	X	X
R <sub>6</sub>	X	X	X	X	X	X	X	X	X	X	X	X
R <sub>7</sub>	-	-	-	X	-	-	X	-	-	-	X	X
R <sub>8</sub>	-	-	-	X	X	-	X	-	-	-	X	X
<b>Total</b>	<b>6</b>	<b>3</b>	<b>4</b>	<b>10</b>	<b>5</b>	<b>4</b>	<b>6</b>	<b>3</b>	<b>6</b>	<b>5</b>	<b>7</b>	<b>7</b>

Referring to **Table 17**, it indicates that the majority of the respondents have provided responses on the characteristics of **CVHB**, but mostly on **CVHB<sub>4</sub> – HISTORIC**. The majority of the respondents also provided views on the **FM** perspective of **FM<sub>1</sub> – PEOPLE**; **FM<sub>2</sub> – PLACE**; **FM<sub>3</sub> – PROCESS**; and **FM<sub>4</sub> - TECHNOLOGY**.

A further elaboration and exploration for **RO<sub>4</sub>** will be discussed in the next section of the thesis.

#### **7.4 Discussions for RO<sub>4</sub>: DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM FM PERSPECTIVE**

Overall, there was a good response gained from the respondents (**R<sub>1</sub> + R<sub>2</sub> + R<sub>3</sub> + R<sub>4</sub> + R<sub>5</sub> + R<sub>6</sub> + R<sub>7</sub> + R<sub>8</sub>**) in developing a theoretical framework for conserving **CVHB** from **FM** perspective. Each respondent has idea that can be integrated later into a final theoretical framework for **CVHB-FM** in Malaysia. **Table 16** in **Section 7.2** illustrated the findings and interview transcripts from Expert Interviews conducted according to the **RO<sub>4</sub>**, while **Table 17** in **Section 7.3** summarised the Descriptive Codes for **RO<sub>4</sub>**.

However, in mapping a robust theoretical framework form of **CVHB-FM**, the discussion section will be divided into 3 sub-sections of responses for the strategic, tactical, and operational responses. Each of the responses will be linked with four vital documents (**D<sub>1</sub> + D<sub>2</sub> + D<sub>3</sub> + D<sub>4</sub>**) which have been analysed earlier in **Chapter 5** in **Section 5.5** from **Table 10** to **Table 13** and also **Section 5.6** in **Table 14** as the summarisation of the Descriptive Codes.

##### **7.4.1 Strategic Level**

**R<sub>1</sub>** has stated that by **PEOPLE-FM<sub>1</sub>** in the conservation of heritage buildings in Malaysia, she is currently referring to the Commissioner of Heritage because she is responsible for evaluating and conserving the **CVHB**. Furthermore in **D<sub>1</sub>** it was verified that the Commissioner of Heritage is the person who is in charge of evaluating and conserving **CVHB** in Malaysia. She stated that **FM<sub>1</sub>** should have the knowledge of **CVHB**, **HISTORIC-CVHB<sub>4</sub>**, materials and the diagnosis of a heritage building in Malaysia. **R<sub>1</sub>** does not elaborate in detail the knowledge of conserving **CVHB** or “the Guiding Principles of Leadership and Management” by IFMA (2006) in **FM** perspective. However, the knowledge of **CVHB** is referring to one’s knowledge on

**CVHB<sub>4</sub>** of any particular of heritage building in Malaysia; material and diagnosis of a heritage building are referring to the process and technology of **FM** perspective of **PROCESS - FM<sub>3</sub>** and **TECHNOLOGY - FM<sub>4</sub>**. Without knowledge by **FM<sub>1</sub>**; the integrity and authenticity of a heritage building will be unsupported.

On the other hand, **R<sub>2</sub>** has mentioned the role of **FM<sub>1</sub>** to assist and advocate the conservation of **CVHB** in using all of the eight classifications of **CVHB** in sustaining the authenticity and integrity of heritage building in Malaysia. He furthermore, provided an expert view on **PLACE - FM<sub>2</sub>** which is linked to **SOCIAL - CVHB<sub>1</sub>** and **HISTORIC - CVHB<sub>4</sub>** and has an important “event” to be remembered by the local community and also a tourist attraction. Thus, according to **D<sub>1</sub> - NHA**, both **SOCIAL - CVHB<sub>1</sub>** and **HISTORIC - CVHB<sub>4</sub>** appeared in the document. The **CVHB<sub>1</sub>** and **CVHB<sub>4</sub>** are related more to the subjectivity of human experience. It is resulted from informational stimulation of human senses attending the heritage site. This was derived from the terminology of **CVHB** concepts of **CVHB<sub>1</sub>** and **CVHB<sub>4</sub>** by UNESCO (2008); ICOMOS (1999); and English Heritage (2008). In terms of **PROCESS - FM<sub>3</sub>** and **TECHNOLOGY - FM<sub>4</sub>**, **R<sub>2</sub>** does not provide any views or opinions on the **FM** perspective.

At the strategic level, **R<sub>1</sub>** and **R<sub>2</sub>** have provided expert views from the viewpoint of the policymaker in developing the theoretical framework. Linkages and insights for **CVHB** and **FM** perspective have been discussed and elaborated on. Both participants have expressed the importance of integration and linkages of **CVHB-FM** in the conservation of a heritage building in Malaysia.

#### **7.4.2 Tactical Level**

In Expert Interviews, **R<sub>3</sub>** perceived that the Commissioner of Heritage is playing the roles of **PEOPLE - FM<sub>1</sub>** in conserving **CVHB** in Malaysia. This similar thought is also expressed by **R<sub>1</sub>** at the strategic level. Furthermore, **R<sub>3</sub>** comprehended that one should have knowledge of **CVHB** and also **NHA - D<sub>1</sub>**, **OUV - D<sub>2</sub>**, **GCHB - D<sub>3</sub>**, and **CMP - D<sub>4</sub>** in conserving heritage buildings in Malaysia.

Furthermore, **R<sub>3</sub>** stresses the **FM<sub>1</sub>** of the roles; teamwork (team building) with the conservation unit and responsibility for external factors such as vandalism. The **FM** roles are the “Guiding Principles of Leadership and Management” by IFMA (2006) that includes “shared



vision”; “integration management activity”; “team building”; “trust and respect”; “accountability”; and “ethical principles”.

On the other hand, **R<sub>3</sub>** has outlined the carrying capacity of heritage building. Carrying capacity is a concept used in tourism economy which is the balance between the physical environment of the heritage building and the number of tourists who visited the building. An even balance has to be maintained both in the physical environment and the quality of the experience perceived by the tourists (Mathieson and Wall, 1982; Malthus, 1986; O’Reilly, 1986; Seidl and Tisdell, 1999). These contributing factors can be complemented and encapsulated by the “Guiding Principles of Leadership and Management” which have been provided by IFMA (2006) under the leadership and management of **FM<sub>1</sub>**.

According to **R<sub>3</sub>** he has agreed that the eight criteria of **CVHB** are important in the conservation process and therefore, only **SOCIAL - CVHB<sub>1</sub>**; **ECONOMIC - CVHB<sub>2</sub>**; **HISTORIC - CVHB<sub>4</sub>**; **AESTHETICAL - CVHB<sub>5</sub>**; **AGE - CVHB<sub>7</sub>**; and **ECOLOGICAL - CVHB<sub>8</sub>** were mentioned. **CVHB<sub>1</sub>** is related to **CVHB<sub>4</sub>**; **CVHB<sub>7</sub>** reflects the existence of the heritage building; and **CVHB<sub>8</sub>** is referring to the surrounding landscape of the heritage building.

However, **R<sub>3</sub>** commented that **ECONOMIC - CVHB<sub>2</sub>** is a popular by product, which means **CVHB<sub>2</sub>** is more on the market profit of the heritage site as the tourist attraction. In addition, **CVHB<sub>2</sub>** is perceived as distinct from other **CVHB** because it is fundamentally different. This has been stated by scholars such as Thorsby (1999, 2007); Mason (2002); Peacock & Rizzo (2008); and Snowball & Courtney (2010) who have classified **CVHB<sub>2</sub>** under market value and non-market value.

On the other hand, **R<sub>3</sub>** has provided views on **PLACE - FM<sub>2</sub>** that are linked to **CVHB<sub>4</sub>** which are related to event and memory and as tourist attraction. Hence **CVHB<sub>4</sub>** more about producing information about a place as stated in the literature (Piper, 1948; Riegl, 1982; and Lipe, 1984).

Thus, **R<sub>4</sub>** has stressed that only **CVHB<sub>4</sub>** is vital in conserving heritage building in Malacca. **R<sub>4</sub>** has a rigid view rather looking at other **CVHB** on conservation. This is because she has a different perspective of conserving a heritage building from architectural aspects. The negligence of other criteria of **CVHB** has constrained her from providing professional views on characteristics of **CVHB** and **FM** dimensions. **R<sub>4</sub>** tends to elaborate on the conservation work process of **GCHB - D<sub>3</sub>** which includes the dilapidation study, archaeological report, and also

producing HAPS Drawings I, II, and III. The conservation principles or **D<sub>3</sub>** will be in a later discussion in the sub section of the document reviews of this chapter.

However, **R<sub>3</sub>** has provided an expert view on **PROCESS - FM<sub>3</sub>** to conserve and maintain the **AESTHETIC - CVHB<sub>5</sub>** based on the conservation principles of conserving the roof, walls, and windows; and **TECHNOLOGY - FM<sub>4</sub>** which is the materials used in conserving a heritage buildings. A further explanation of **FM<sub>3</sub>** and **FM<sub>4</sub>** will be discussed by the respondents at the operational levels.

To summarise, at the tactical level (**R<sub>3</sub>** and **R<sub>4</sub>**), the participants provided expert views on **CVHB** and **FM** perspective the conserving heritage building in Malaysia. At the tactical level, **R<sub>3</sub>** has provided views on most of the criteria of **CVHB** with some linkage to **FM** perspective. Similar to the strategic level, respondents at the tactical level also stressed the necessity and importance of integration and linkages of **CVHB-FM** in conservation of a heritage building in Malaysia.

### 7.4.3 Operational Level

In developing the theoretical framework for **CVHB-FM**, **R<sub>5</sub>** and **R<sub>6</sub>** have elaborated on the characteristics of **CVHB** and **FM** perspective of **PEOPLE - FM<sub>1</sub>**; **PLACE - FM<sub>2</sub>**; **PROCESS - FM<sub>3</sub>**; and **TECHNOLOGY - FM<sub>4</sub>**. **R<sub>5</sub>** and **R<sub>6</sub>** perceived that all **CVHB<sub>(1-8)</sub>** are vital in conserving heritage buildings in Malacca.

**R<sub>6</sub>** perceived that **SOCIAL - CVHB<sub>1</sub>** is the most vital in conserving **CVHB** in Malacca because it represents the historical facts of the country. She further perceived that **HISTORIC - CVHB<sub>4</sub>** and **AESTHETIC - CVHB<sub>5</sub>** are interconnected with **CVHB<sub>1</sub>**. In the literature, **CVHB<sub>1</sub>**, **CVHB<sub>4</sub>**, and **CVHB<sub>5</sub>** are the initial values that were established as the Primary Values for conserving the heritage building initiated by UNESCO. Hence, **R<sub>6</sub>** reiterated that **POLITICAL - CVHB<sub>3</sub>** is about emblematic of power and authority of conserving the heritage assets; **SCIENTIFIC - CVHB<sub>6</sub>** is about the development of technology of conservation; and **ECOLOGICAL - CVHB<sub>8</sub>** is related to the environment connected to the heritage building.

On the other hand, **R<sub>6</sub>** assumed that **ECONOMIC - CVHB<sub>2</sub>** represent the opportunity to contractors and consultants in conserving the heritage buildings in Malacca. Basically **CVHB<sub>2</sub>** is the potential function and income obtained of a product or services. These have the values of: (1) “use”, which is the function and utility of the asset, original or attributed; (2) “non-use”, which

the asset's expired function, which has its value in the past, and should be retained for its (material) existence, options (to make some use of it or not) and bequest value (for future generations); "entertainment", which is the role it might have for the contemporaneous market, mainly for the tourism industry; and "allegorical", where it is oriented to publicising financial property (Snowball & Courtney, 2010; ICOMOS, 1999; UNESCO, 2008). However, the expert view from **R<sub>6</sub>** is a personal opinion and does not represent the operational level responses.

According to **R<sub>5</sub>**, **FM<sub>1</sub>** is leadership and a sense of love for heritage buildings in Malaysia; and **R<sub>6</sub>** responded that **FM<sub>1</sub>** is knowledgeable in **CVHB**, processes and instruments for heritage building's conservation. However, neither of the respondents elaborated further about the views which would enable them to relate to any criteria of **CVHB**.

**FM<sub>2</sub>** is viewed as the functionality of the space and as a tourist attraction. It also indicates the **CVHB<sub>1</sub>**; **CVHB<sub>3</sub>**; **CVHB<sub>4</sub>**; **CVHB<sub>5</sub>**; and **CVHB<sub>7</sub>**; were mentioned.

At the operational level, the participants responded that the **PROCESS - FM<sub>3</sub>** of conserving the *Stadhuys* building begins with a preliminary study report on the background of the heritage building and a dilapidation study to find out about the structure and materials that should be used for conserving the *Stadhuys* building. Then, the **TECHNOLOGY - FM<sub>4</sub>** will be used in mixing the original lime cement and plaster and the durability test. According to **R<sub>5</sub>** the sample material was sent to the MINT (Malaysian Institute for Nuclear Technology) or USM (University of Science Malaysia) to find the composition of the materials. However, according to **R<sub>8</sub>** slick lime is not suitable in conserving the heritage building.

According to **R<sub>7</sub>** most of the walls of the heritage building are mouldy, so scraping old plaster and the Cocon technique were used in **FM<sub>3</sub>** and **FM<sub>4</sub>**. However, **R<sub>8</sub>** stated that the wetness and dampness problems are monitored. For the windows, most of the windows are still in good condition. In addition, the conservation of windows is according to the type and size of the wood. **R<sub>7</sub>** and **R<sub>8</sub>** explained any damages of the windows will be mortised and filled-up.

On the other hand, in conserving the roof, **R<sub>8</sub>** stated that 20-30% of the heritage roof was cracked and damaged when it was brought down to maintain. Moreover, **R<sub>8</sub>** comprehended that there are difficulties in finding the heritage roofs in the Malaysian market. Due to this he perceived that **CVHB<sub>7</sub>**, **CVHB<sub>4</sub>**, and **CVHB<sub>5</sub>** were deemed to be lost.

**FM<sub>4</sub>** in this study is not referring to the cutting-edge technology in **FM** such as Building Information Modelling (BIM), a Building Automation System (BAS), or **FM** automation such as CAFM (Computer Aided Facility Management). Technology in this sense is referring to the

appropriate technology used as the mechanism to coordinate the activity of conserving **CVHB**. Appropriate technology is introduced by Schumacher (1973) who was concerned about the people, environment, and economics by using sources of energy and materials which are environmentally safe (Richardson, 1979; Ghosh, 1984; Darrow and Saxenian, 1993; Buitenhuis *et al.*, 2010).

Basically, at the operational level, most of the respondents elaborate and explain the operational and maintenance work of conserving **CVHB** in Malaysia. The participants only provided expert views for most of the characteristics of **CVHB** and have linked them to the **FM** perspective. Furthermore, the respondents mutually agreed that **FM** should be in position at the operational level to assist the conservation of heritage buildings in Malacca.

#### **7.4.4 Discussion of Document Reviews**

Earlier in **Chapter 5** in **Section 5.5** four documents which were the National Heritage Act of Malaysia (**NHA**) or **D<sub>1</sub>**; The Outstanding Universal Values (**OUV**) by UNESCO or **D<sub>2</sub>**; The Guidelines for Conservation of Heritage Building in Malaysia (**GCHB**) or **D<sub>3</sub>**; and The Conservation Management Plan of Malacca (**CMP**) or **D<sub>4</sub>** have been reviewed and analysed. A detailed explanation and elaboration of all documents (**D<sub>1</sub> + D<sub>2</sub> + D<sub>3</sub> + D<sub>4</sub>**) will be discussed in this sub-section. **Table 18** indicates the overall document coded extracts derived from the Summarisation of Descriptive Codes from **Chapter 5, Section 5.6** in **Table 14**.

In **Table 18** of the overall Documents Coded Extracts, it has indicated that several criteria of **CVHB** such as **SOCIAL - CVHB<sub>1</sub>**; **HISTORIC - CVHB<sub>4</sub>**; **AESTHETICAL - CVHB<sub>5</sub>**; **SCIENTIFIC - CVHB<sub>6</sub>**; and **ECOLOGICAL - CVHB<sub>8</sub>** are outlined in the documents of **D<sub>1</sub> - NHA**, **D<sub>2</sub> - OUV**, and **D<sub>3</sub> - GCHB**. However, in **D<sub>4</sub> - CMP**, none of the **CVHB** is mentioned because it deals with the planning and design of sustaining a significance place of heritage and is more related to the **PROCESS - FM<sub>3</sub>**. Nevertheless, **D<sub>2</sub>** is about the verifying the significance of a heritage building according to **CVHB<sub>4</sub>** and **CVHB<sub>5</sub>**, without any involvement of the **FM** perspective.

**PART I** of the document transcript of **D<sub>1</sub>** outlined the **FM** perspective of **PEOPLE - FM<sub>1</sub>**, **PLACE - FM<sub>2</sub>**, **PROCESS - FM<sub>3</sub>**, and **TECHNOLOGY - FM<sub>4</sub>**. Even though the **FM** perspective in **D<sub>1</sub>** is not clearly explained it highlights the key points that can be encapsulated later in the **FM** perspective.

**FM<sub>1</sub>** in **D<sub>1</sub>** and **D<sub>3</sub>** are currently referring to the Commissioner of the Heritage of the Department of Cultural Heritage Malaysia. She is responsible for conserving **CVHB** and playing the role of **FM** in conservation in Malaysia. Overall, the respondents suggested **FM<sub>1</sub>** as the person who has the leadership and management in conservation such as in the history and background of the heritage building in Malaysia; is knowledgeable in **CVHB**; the processes and technology used for conservation, and experts in **NHA**, **OUV**, **GCHB**, and **CMP**. Hence, the “Guiding Principles of Leadership and Management” of **FM<sub>1</sub>** by IFMA (2006) consists of (1) Complementary elements (skills, knowledge, attitude); (2) Shared vision; (3) Integration of management activity (human leadership, technical, and financial resources); (4) Team building; (5) Trust and respect; (6) Accountability; and (7) Ethical philosophy. However, none of the respondents linked **FM<sub>1</sub>** to any characteristics of **CVHB**.

**Table 18:** The Overall Documents Coded Extracts.

<b>No. Document</b>	<b>Document Type</b>	<b>Cultural Values of Heritage Buildings (CVHB)</b>	<b>Facilities Management Perspective (FM)</b>
<b>D<sub>1</sub></b>	The National Heritage Act of Malaysia ( <b>NHA</b> )	<b>SOCIAL - CVHB<sub>1</sub></b> <b>HISTORIC - CVHB<sub>4</sub></b> <b>AESTHETIC - CVHB<sub>5</sub></b> <b>SCIENTIFIC - CVHB<sub>6</sub></b> <b>ECOLOGICAL - CVHB<sub>8</sub></b>	<b>PEOPLE - FM<sub>1</sub></b> <b>PLACE - FM<sub>2</sub></b> <b>PROCESS - FM<sub>3</sub></b> <b>TECHNOLOGY - FM<sub>4</sub></b>
<b>D<sub>2</sub></b>	The Outstanding Universal Values ( <b>OUV</b> )	<b>HISTORIC - CVHB<sub>4</sub></b> <b>AESTHETIC - CVHB<sub>5</sub></b>	-
<b>D<sub>3</sub></b>	The Guidelines for Conservation of Heritage Building in Malaysia ( <b>GCHB</b> )	<b>SOCIAL - CVHB<sub>1</sub></b> <b>HISTORIC - CVHB<sub>4</sub></b> <b>AESTHETIC - CVHB<sub>5</sub></b> <b>SCIENTIFIC - CVHB<sub>6</sub></b> <b>ECOLOGICAL - CVHB<sub>8</sub></b>	<b>PEOPLE - FM<sub>1</sub></b> <b>PLACE - FM<sub>2</sub></b> <b>PROCESS - FM<sub>3</sub></b> <b>TECHNOLOGY - FM<sub>4</sub></b>
<b>D<sub>4</sub></b>	The Conservation Management Plan of Malacca ( <b>CMP</b> )	-	<b>PROCESS - FM<sub>3</sub></b>

For the **FM<sub>2</sub>**, **D<sub>1</sub>** stated that “*Heritage site include the building and its surrounding area*”. This indicates **FM<sub>2</sub>** is the heritage building and the landscape area. Furthermore, according to the respondents, **FM<sub>2</sub>** indicates the functionality of the space and reflects local identity, memory, and historical event for the local community and as a tourist attraction. Hence, the criteria of **CVHB<sub>1</sub>**, **CVHB<sub>3</sub>**, **CVHB<sub>4</sub>**, and **CVHB<sub>5</sub>** have been elaborated on by the strategic, tactical, and operational level in **Table 15** in **Section 7.2**. On the other hand, the terminology of **FM<sub>2</sub>** by Maas and Pleunis (2001) on the locality, functionality, and technical flexibility can be broadened from the **FM** perspective of conservation of heritage buildings.

The **PROCESS - FM<sub>3</sub>** is far beyond the traditional terminology of conservation. **D<sub>1</sub>** and **D<sub>3</sub>** have outlined “the process of conservation which includes preservation, restoration, reconstruction, rehabilitation, and adaptation or any combination”. These indicate that **FM<sub>3</sub>** in conservation in Malaysia must comply with the procedures and regulations of **D<sub>1</sub>**, and **D<sub>3</sub>**. In **Part III** of **D<sub>3</sub>** explains the documentation guidelines for conserving a heritage building. It is divided into: (1) Before the conservation, which is the Dilapidation Report; (2) During the conservation, there is the Historical Architecture Building Survey or HABS I and II; (3) After the conservation there is HABS III and the final report. Thus, these three stages of documentation guidelines have to be included in the theoretical framework of **FM<sub>3</sub>**. On the other hand, **Part IV** of **D<sub>3</sub>** elaborates on the principle guidelines describing the conservation methods and procedures for elements of heritage buildings such as the roof, walls, windows, floors, columns, openings, decorations and stairs. However, the respondents have provided views on the roof, walls, and windows. Therefore, these elements are perceived as important and contribute to the original character of a heritage building in Malaysia. Furthermore, operations and maintenance of the roof, walls, and windows are explained and elaborated on by the operational level respondents in. Operation and maintenance is included in the conserving **CVHB** because it is one of **FM** core competencies that will assist in sustaining the functionality of a heritage building (IFMA, 2006 and 2010; Cotts *et al.*, 2010; Lewis *et al.*, 2010; Douglas, 1996; Amaratunga and Baldry, 2001; Pitt and Tucker, 2008).

**TECHNOLOGY - FM<sub>4</sub>** refers to an “Appropriate Technology as the mechanism and medium that assists the **FM** activity”. **FM<sub>4</sub>** includes the technology, skills, techniques, materials, expertise in conserving, sustaining, and maintaining the heritage building’s physical condition. Thence, **FM<sub>4</sub>** has been in used assisting in building care that is concerned about the people, environment, and economics by using sources of energy and materials which are environmentally

safe (Richardson, 1979; Ghosh, 1984; Darrow and Saxenian, 1993; Steele, 1997; Sassi, 2006; Buitenhuis *et al.*, 2010). In addition respondents also elaborated that **SCIENTIFIC - CVHB<sub>6</sub>** has linkages with **FM<sub>4</sub>**.

To conclude, there are inter-linkages between all characteristics of **CVHB** and **FM** perspective of **PEOPLE - FM<sub>1</sub>**, **PLACE - FM<sub>2</sub>**, **PROCESS - FM<sub>3</sub>**, and **TECHNOLOGY - FM<sub>4</sub>** which are based on the responses from the Expert Interviews. Therefore, the next step of this research is to develop an initial theoretical framework for conserving **CVHB** from **FM** perspective in Malaysia.

## **7.5 Developing an INITIAL Theoretical Framework for Conserving Cultural Values of Heritage Buildings in Malaysia from the perspective of Facilities Management**

In this research, eight classifications of Cultural Values of Heritage Buildings or **CVHB** of **SOCIAL - CVHB<sub>1</sub>**; **ECONOMICAL - CVHB<sub>2</sub>**; **POLITICAL - CVHB<sub>3</sub>**; **HISTORIC - CVHB<sub>4</sub>**; **AESTHETICAL - CVHB<sub>5</sub>**; **SCIENTIFIC - CVHB<sub>6</sub>**; **AGE - CVHB<sub>7</sub>**; and **ECOLOGICAL - CVHB<sub>8</sub>** are identified as important and linked with Facilities Management or **FM** perspective of **PEOPLE - FM<sub>1</sub>**; **PLACE - FM<sub>2</sub>**; **PROCESS - FM<sub>3</sub>**; and **TECHNOLOGY - FM<sub>4</sub>**. The criteria of **CVHB** and **FM** perspective of **FM<sub>1</sub>**; **FM<sub>2</sub>**; **FM<sub>3</sub>**; and **FM<sub>4</sub>** have been explained and elaborated on by the participants. These two concepts of **CVHB** and **FM** are brought together to establish a theoretical framework for conserving **CVHB** from **FM** perspective in order to sustain the physical condition of the heritage buildings in Malaysia.

**Figure 14** indicates the INITIAL theoretical framework for Conserving Cultural Values of Heritage Buildings (**CVHB**) from the perspective of Facilities Management (**FM**) in Malaysia.

It can be summarised that the all criteria of **CVHB** which are **CVHB<sub>1</sub>**; **CVHB<sub>2</sub>**; **CVHB<sub>3</sub>**; **CVHB<sub>4</sub>**; **CVHB<sub>5</sub>**; **CVHB<sub>6</sub>**; **CVHB<sub>7</sub>**; and **CVHB<sub>8</sub>** are epistemological constructs with **FM** perspective of **FM<sub>1</sub>**; **FM<sub>2</sub>**; **FM<sub>3</sub>**; and **FM<sub>4</sub>**. Therefore, the displays for **FM** perspective are as follows:-

**FM<sub>1</sub>** consists of:

- The Commissioner of Heritage Malaysia;
- Leadership and Management Guiding Principles; and
- Knowledgeable in **CVHB**; **NHA**; **OUV**; **GCHB**; and **CMP**; process of conservation; history and background of heritage building in Malaysia; technology used for conservation;

As for **FM<sub>2</sub>**:

- A heritage building indicates the functionality of the space that reflects local identity, memory, and historical events for the local community and as tourist attraction; and
- A heritage building includes the site, landscape, and surroundings.

**FM<sub>3</sub>** comprises of:

- Conserving **CVHB** in Malaysia includes preservation, restoration, reconstruction, rehabilitation, and adaptation or any combination method;
- According to **NHA, OUV, GCHB** and **CMP**;
- Consists of documentation of (1) Before the conservation - Dilapidation Report; (2) During the conservation - HABS I & II; and (3) After conservation – HABS III & the final report; and
- Operations and Maintenance of the roof, walls, and windows.

Last but not least, **FM<sub>4</sub>**:

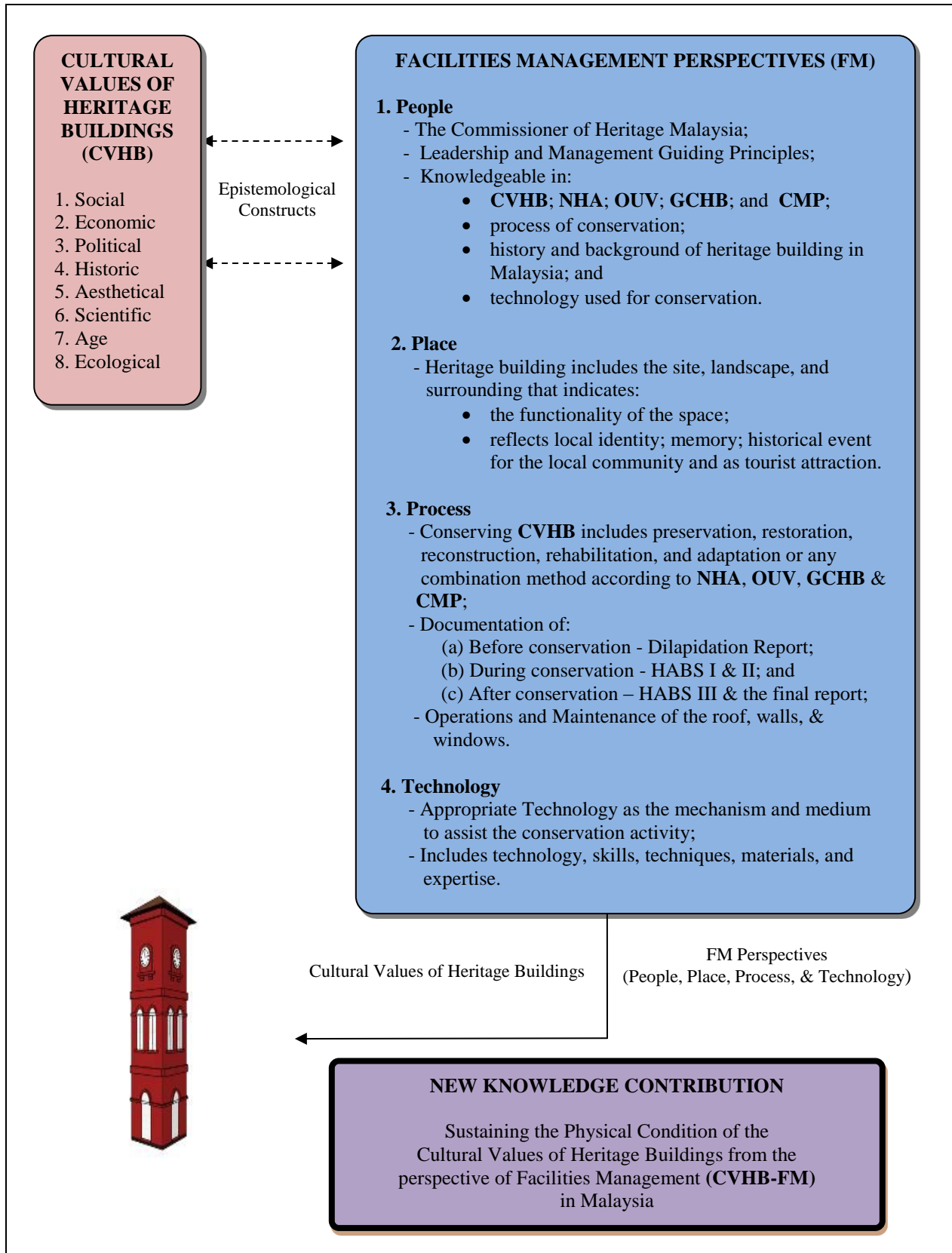
- Appropriate Technology as the mechanism and medium to assist the **FM** activity;
- Technology, skills, techniques, and materials, expertise in conserving, sustaining, and maintaining the heritage building's physical condition.

Nevertheless, this INITIAL framework will be further validated via Focus Group Discussion (FGD) at the strategic level which consists of the Deputy Commissioner of Cultural Heritage; The Registry and Enforcement Director; and the officers under the Conservation unit of the Department of Cultural Heritage, Ministry of Information Communications and Culture of Malaysia.

However, it should be noted that all the identified characteristics and criteria of **CVHB** and **FM** perspective will be subject to inclusion or exclusion in the framework validation phase of this research. Thus, the INITIAL Template will be revised and verified via FGD before producing the final template of the research.



**Figure 14:** An INITIAL Template for the Theoretical Framework for Conserving CVHB in Malaysia from the perspective of FM.



## 7.6 Summary and Link

This chapter has presented the analysis, and key findings for **RO<sub>4</sub>** in developing the theoretical framework for conserving **CVHB** in Malaysia from **FM** perspective. Expert Interviews have been conducted at the strategic, tactical, and operational level in gaining expert views for this objective. The Expert Interviews are then analysed using Content Analysis and the discussions of the responses are made. This chapter also consists of discussion on the four documents (**D<sub>1</sub>**: The National Heritage Act of Malaysia; **D<sub>2</sub>**: Outstanding Universal Values; **D<sub>3</sub>**: Guidelines for Conservation of Heritage Building in Malaysia; and **D<sub>4</sub>**: Conservation Management Plan of Malacca) which have been analysed earlier in **Chapter 5** of the thesis. At the end of the chapter, an INITIAL framework for conserving **CVHB** from **FM** perspective is produced.

The next section will be the analysis of **RO<sub>5</sub>** in validating the INITIAL framework of the study.

## CHAPTER 8: VALIDATION OF THE THEORETICAL FRAMEWORK FOR CONSERVING CVHB-FM IN MALAYSIA

### 8.1 Introduction

This chapter is discusses the final objective of the study or **RO<sub>5</sub>** aiming for validation of conserving **CVHB-FM** at the strategic level via Focus Group Discussion in order to verify the FINAL framework. Accordingly, this chapter is structured as follows:

- Overview for the validation of findings of conserving **CVHB-FM**;
- Presentation of the FINAL theoretical framework for conserving **CVHB-FM**; and
- Summary and link of the chapter.

### 8.2 Overview of the Validation Findings for Conserving CVHB-FM in Malaysia

The following result summary was deduced from the discussion and analysis that was conducted during the validation process:

1. A total of four respondents have participated in the validation process of conserving **CVHB-FM** framework. It consists of three Cultural Heritage officers from the Conservation Unit Department of Cultural Heritage Malaysia and the Director of the Registration and Enforcement Unit (**R<sub>2</sub>**) from the strategic level. The Deputy Commissioner of Heritage (**R<sub>1</sub>**) was absent due to the termination of the secondment contract of the position.
2. All the criteria of **CVHB** which are **SOCIAL; ECONOMIC; POLITICAL; HISTORIC; AESTHETICAL; SCIENTIFIC; AGE; and ECOLOGICAL** which were developed from the literature and the respondent's response were perceived as "vital" and "agreed" by the participants in developing the theoretical framework for conserving **CVHB-FM** in Malaysia.
3. For the **FM** perspective of **PEOPLE**, the Commissioner of Heritage is currently regarded as the **FM** because of her exercising role of **FM** in the department. The respondent discussed the team building and cooperation between the

Commissioner of Heritage with others such as the Conservation Unit and Registration and Enforcement Unit which is the key to success in conserving the **CVHB** in Malaysia. Team building is one of the seven **FM**'s Leadership and Guiding Principles provided by IFMA.

4. During the discussion on **PLACE**, the respondents mutually suggested the elaboration of “**PLACE** that refers to heritage building includes the site, landscape, and surrounding ...” should include monument buildings. This is because monument buildings are also perceived as a heritage building because they commemorate the local identity, memory, historical events, and as tourist attractions in Malaysia.
5. Overall, the respondents agreed that the terminology of **PROCESS** is “conserving **CVHB** includes preservation, restoration, reconstruction, rehabilitation, and adaptation or any combination method according to The National Heritage Act of Malaysia or **NHA**; Outstanding Universal Values or **OUV**; Guidelines for Conservation of Heritage Building in Malaysia or **GCHB**; and The Conservation Management Plan of Malacca or **CMP**. Therefore, the Director of the Registration and Enforcement Unit (**R<sub>2</sub>**) comprehended that **GCHB** is the “Overall Guidelines” for the macro level of heritage buildings management in Malaysia and **CMP** for Malacca is the guidelines for management plans for heritage buildings specifically in Malacca only.
6. In addition to the **PROCESS** characteristics of “Operation and Maintenance of roof, walls, & windows”, the respondents stated that Operation and Maintenance of a heritage building such as the *Stadhuys* consists of the whole heritage building itself. However, “Operation and Maintenance of the roof, walls, and windows” are the major building components and elements of a heritage building in Malaysia. Due to this, the respondents suggested to include “Operation and Maintenance of the heritage building components and elements of the roof, walls, and windows”.
7. Although the workshop respondents agreed that the theoretical framework aimed to sustain the physical condition of the Cultural Values of Heritage Buildings in Malaysia from the perspective of Facilities Management (**CVHB-FM**), the Director of the Registration and Enforcement Unit (**R<sub>2</sub>**) suggested that beside

sustaining the physical condition of **CVHB**, it also aims to sustain the authenticity and integrity of **CVHB** using the **FM** perspective in Malaysia.

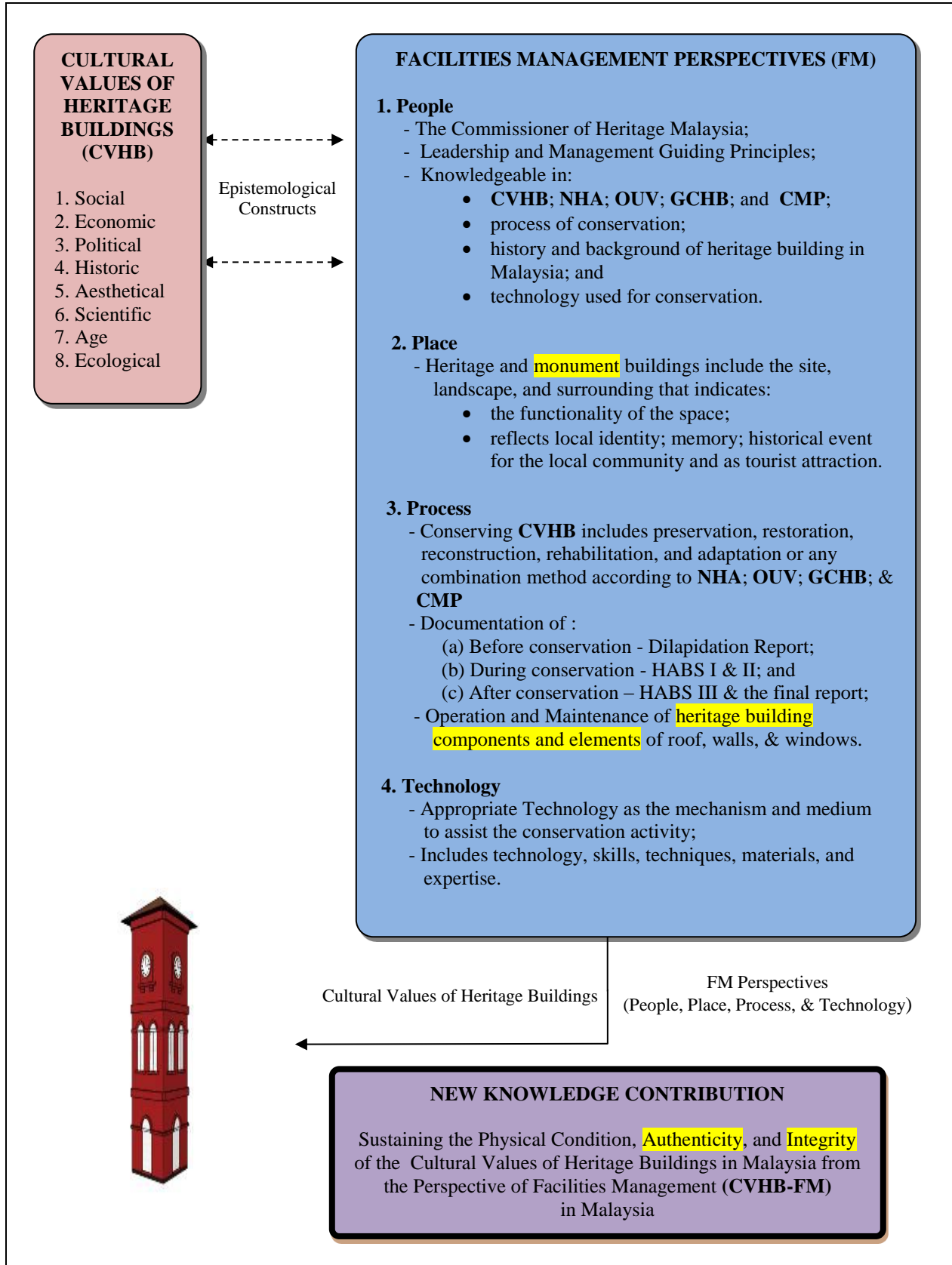
### **8.3 Presentation of the FINAL Framework for Conserving CVHB-FM in Malaysia**

In **Section 7.5** in **Figure 14**, the INITIAL Template for the Theoretical Framework for Conserving Cultural Values of Heritage Buildings (**CVHB**) in Malaysia from the perspective of Facilities Management (**FM**) has been developed based on the literature, document reviews, and expert interviews. However, the INITIAL Template for the Theoretical Framework was further revised in the Focus Group Discussion at the strategic level.

During the validation process, no elimination of the concepts or characteristics of the variables of **CVHB** or **FM** occurred. However, insertion and expansion of the characteristics of **FM** have been made by the respondents. Based on the validation analysis and overview of validation findings, the FINAL theoretical framework was further refined and highlighted in yellow marker in **Figure 15**.

The refinement and the final theoretical framework of conserving **CVHB-FM** are ready to be undertaken as a guideline by the Department of Cultural Heritage in Malaysia. Currently for **PEOPLE**, the Commissioner of Heritage is regarded as practising the role of **FM** in conserving **CVHB** because there is no position for **FM** in particular. However, in future, **PEOPLE** will be placed by the **FM** manager who has all the criteria stated in the FINAL framework for conserving **CVHB-FM** in Malaysia.

**Figure 15:** The FINAL Template for the Theoretical Framework for Conserving CVHB-FM in Malaysia after the Validation Process (which are highlighted in yellow marker).



#### 8.4 Summary and Link

This chapter highlighted further validation of the integration and inter-linkages between **CVHB** and **FM** perspectives with the Focus Group Discussion at the strategic level. In the validation process, two research variables and characteristics of **CVHB** and **FM** were validated in order to establish the FINAL Template of the theoretical framework for conserving **CVHB-FM** in Malaysia. No eliminations occurred during the process of refining the framework. Therefore, in revising the INITIAL framework, further expansion and insertion of characteristics of **FM** perspectives were made.

Next will be final chapter of the thesis which is the conclusion and recommendations. It will revisit and discuss the summary of the research, the research objectives, present the conclusions derived from the research, highlights the contributions, and points out the limitations of the research and suggest recommendations for future study.

## **CHAPTER 9: CONCLUSIONS, RESEARCH CONTRIBUTION, LIMITATIONS, AND RECOMMENDATIONS FOR FUTURE WORK**

### **9.1 Introduction**

This chapter aims at providing the conclusions, recommendations for current practice, and suggestions for future research; it also encapsulates the research findings for this thesis. In order to realise the aim and objectives, revisiting the research process from the synthesis of the literature review, research methodology, and main findings will encapsulate the overview. The evaluation of this thesis will be discussed critically in this final chapter.

### **9.2 Revisiting the Research Process**

Primarily, this research was initiated by reviewing and synthesising the literature sources. The centre of discussion was aimed at developing a “Theoretical Framework for Conserving Cultural Values of Heritage Buildings (CVHB) in Malaysia from the perspective of Facilities Management (FM)”.

**Chapter 2** of the literature discussed the proposition of the conceptual framework. It began with exploring Malacca, Malaysia as the straits of cultural heritage. Then, the literature moved on to discussing the reviews on the concept of conserving heritage buildings and the multidisciplinary role of **FM**. In reviewing the sources of literature, deficiencies in the current practice of Value-Based Management (VBM) are identified as a shortfall in conserving heritage buildings. Also, conflicts of values clashes among the heritage stakeholders were identified in the preliminary process of conservation. Due to this, the **FM** perspective is undertaken to overcome the problem in conservation. Therefore, **FM** is adopted because of the familiarity with building care practices. In this study, **CVHB** (social, economic, political, historic, aesthetical, scientific, age, and ecological) were linked to the **FM** perspective (people, place, process, and technology).

Progressing from the literature review, the research methodology was established in **Chapter 3**. It illuminated the philosophical stance, research approach and techniques, analysis method, as well as mapping the conceptual framework of the study. **Chapter 3** began with discussing the research philosophy adopted which is the Critical Realist stance. The Critical Realist perspective views understanding of the world by distinguishing the reality between the



factual and empirical and the structures and mechanisms in the event or phenomena. As a turning point, the research commenced gradually, discovering conservation of **CVHB** from **FM** perspectives in Malaysia. Hence, Saunders's "Onion" research model was adopted to achieve the goals of the study. The conservation practitioners at Malacca's World Heritage City (WHC) were adopted as a case-study and formed the strategy of the research. A single holistic embedded approach from the three levels of conservation practitioners at Strategic, Tactical, and Operational, in Malacca's WHC constituted the stratified meaningful data of the research. In exploring the journey of discovering the phenomena, an analysis flow of the research was generated. Miles and Huberman's Matrix Thematic mapped the main elements of the study which are **CVHB**, **FM**, conservation practitioners, and conservation documents in a robust manner. On the other hand, expert interviews and document reviews were the main tools for gathering the data. The raw qualitative data was then analysed via Krippendorff's Content Analysis and King's Template Analysis.

**Chapter 4, 5, 6, 7, and 8**, are the main findings and analysis of the research. A critical discussion and summary is further elaborated on in **Section 9.3**, which is the Accomplishment of the Research Aim and Objectives.

### **9.3 Accomplishment of the Research Aim and Objectives**

As predetermined in **Chapter 1**, this study aimed to develop a "Theoretical Framework for Conserving Cultural Values of Heritage Buildings (**CVHB**) in Malaysia from the perspective of Facilities Management (**FM**)". Hence, five Research Objectives (RO) which are, RO<sub>1</sub>: Appraising and synthesising Cultural Values of Heritage Buildings (**CVHB**); RO<sub>2</sub>: Understanding the current practice in conserving **CVHB** in Malaysia; RO<sub>3</sub>: Identifying how the current **FM** perspective in Malaysia influences the conservation process in order to conserve **CVHB**; RO<sub>4</sub>: Developing a theoretical framework for conserving **CVHB** in Malaysia from a **FM** perspective; and RO<sub>5</sub>: Validating the theoretical framework for conserving **CVHB-FM** in Malaysia were explained consecutively in the following discussions identified as **Section 9.3.1**, **Section 9.3.2**, **Section 9.3.3**, **Section 9.3.4**, and **Section 9.3.5**.

### **9.3.1 RO<sub>1</sub>: APPRASING AND SYNTHESISING CULTURAL VALUES OF HERITAGE BUILDINGS**

In order to develop the theoretical framework, **RO<sub>1</sub>** has to be accomplished first. **RO<sub>1</sub>** is aimed at appraising and synthesising **CVHB**. There are two main findings which appeared in **RO<sub>1</sub>**, the first being, understanding the **CVHB** concept and later, mapping **CVHB** with **FM** perspectives. As a result, eight major aspects of **CVHB** were identified as **SOCIAL - CVHB<sub>1</sub>**; **ECONOMIC - CVHB<sub>2</sub>**; **POLITICAL - CVHB<sub>3</sub>**; **HISTORIC - CVHB<sub>4</sub>**; **AESTHETICAL - CVHB<sub>5</sub>**; **SCIENTIFIC - CVHB<sub>6</sub>**; **AGE - CVHB<sub>7</sub>**; and **ECOLOGICAL - CVHB<sub>8</sub>** which were discussed and elaborated on. Eight classifications of **CVHB** were then developed and integrated and linked with **FM** perspectives of **PEOPLE - FM<sub>1</sub>**; **PLACE - FM<sub>2</sub>**; **PROCESS - FM<sub>3</sub>**; and **TECHNOLOGY - FM<sub>4</sub>**.

### **9.3.2 RO<sub>2</sub>: UNDERSTANDING THE CURRENT PRACTICE IN CONSERVING CULTURAL VALUES OF HERITAGE BUILDINGS IN MALAYSIA**

**RO<sub>2</sub>** is to explore the current practice in conserving **CVHB** in Malaysia. Hence, a series of eight expert interviews were conducted to gather the information. Three levels of conservation practitioners were indentified; there were Strategically - **R<sub>1</sub>** is the Deputy Commissioner of Cultural Heritage Department Malaysia and **R<sub>2</sub>** is Director of Registration and Enforcement, Cultural Heritage Department Malaysia; Tactically - **R<sub>3</sub>** is the Director of World Heritage Organisation of Malacca and **R<sub>4</sub>** is the Conservation Architect of Malacca City Council; and Operationally **R<sub>5</sub>** is the Curator/Conservator I for Malacca Museum Corporation, **R<sub>6</sub>** is the Curator/Conservator II for Malacca Museum Corporation, **R<sub>7</sub>** is the Curator Assistant for Malacca Museum Corporation, and **R<sub>8</sub>** is the Contractor/Appointed Conservator.

The Strategic level consists of individuals who were charged with policy making, planning, and modelling the conservation practice of heritage buildings in Malaysia. The Tactical level consists of individuals who were concerned with producing the totality functions of the conservation practice. These include the controlling and monitoring of the physical condition of heritage buildings in Malacca's WHC. The Operational level consists of individuals who were engaged in the operational work of operating the process of conserving a heritage building such

as the *Stadhuys* building in Malacca. Thus, content analysis was used to manifest the sources of evidence from expert interviews and document reviews.

The analysed data of the expert interviews were generalised as follows:

- Strategically:
  - The respondents, which are **R<sub>1</sub>** (Deputy Commissioner of Cultural Heritage Department Malaysia) and **R<sub>2</sub>** (Director of Registration and Enforcement, Cultural Heritage Department Malaysia) perceived all eight classifications of **CVHB** (social, economic, political, historic, aesthetic, scientific, age, and ecological) are used in the current practice of conserving a heritage building in Malaysia.
  - There were no further elaborations on all the **CVHB** cited by the respondents.
  - **R<sub>1</sub>** recommends referring to the four vital documents used. They were:
    - i. **D<sub>1</sub>** – The National Heritage Act of Malaysia or **NHA**;
    - ii. **D<sub>2</sub>** – Outstanding Universal Values or **OUV**;
    - iii. **D<sub>3</sub>** – Guidelines for Conservation of Heritage Building in Malaysia or **GCHB**; and
    - iv. **D<sub>4</sub>** – The Conservation Management Plan of Malacca or **CMP**.
  - **R<sub>2</sub>** elaborated briefly on **D<sub>1</sub> - NHA**, **D<sub>3</sub> - GCHB**, and **D<sub>4</sub> - CMP**.
- Tactically:
  - **R<sub>3</sub>** (Director of World Heritage Organisation of Malacca) and **R<sub>4</sub>** (Conservation Architect of Malacca City Council) also comprehended that all of **CVHB** is applied in conserving a heritage building in Malacca's WHC.
  - **R<sub>3</sub>** and **R<sub>4</sub>** do not elaborate further about the current practice of conservation, but instead detailed their organisation's tactical functions.
- Operationally:
  - The majority (3 out of 4 respondents) stated that all **CVHB** characteristics, **GCHB**, and **CMP** were used in the current practice of conservation. Nevertheless, none of them specified the operational work process.

- However, **R<sub>8</sub>** (Contractor/Appointed Conservator) does not respond to the **RO<sub>2</sub>**.

It was noted in the expert interviews, that the participants perceived all characteristics of **CVHB** (social, economic, political, historic, aesthetic, scientific, age, and ecological) are used in the current practice of conservation in Malaysia. As a Critical Realist, it is vital to discover the “real” from fact and empirical of the respondents’ view. Hence, content analysis has been carried out on **D<sub>1</sub>**, **D<sub>2</sub>**, **D<sub>3</sub>**, and **D<sub>4</sub>**.

The analysis in **RO<sub>2</sub>** indicated that **SOCIAL**, **HISTORIC**, **AESTHETICAL**, **SCIENTIFIC**, and **AGE** does appear in “The National Heritage Act of Malaysia (NHA)” or **D<sub>1</sub>**. Furthermore, the Cultural Values of **HISTORIC**, **AESTHETICAL**, and **AGE** have also been mentioned in UNESCO’s **OUV** of **D<sub>2</sub>** and only **SOCIAL** is noted in **GCHB** of **D<sub>3</sub>**. Nevertheless, no **CVHB** have been remarked on in **CMP** of **D<sub>4</sub>**. The **CMP** is more focused on the procedures, objectives, and visions of the significance of plans for managing a heritage building in Malacca’s World Heritage City. It does not require any **CVHB** to be encapsulated in the management plan. Therefore, ICOMOS have endorsed **CMP** to be applied which outlines the significance of a heritage asset in retaining it for future use, as well as the management, alteration, and repair procedures.

Generally, **SOCIAL**, **HISTORIC**, **AESTHETICAL**, and **SCIENTIFIC** were established and classified by UNESCO’s World Heritage Committee as the Primary Values (PV) which have been used in evaluating heritage objects, monuments, sites, and buildings. The vitality of these primary values were constituted in the **NHA** or **D<sub>1</sub>** in exercising the conservation practice in Malaysia.

### **9.3.3 RO<sub>3</sub>: IDENTIFYING HOW THE CURRENT FM PERSPECTIVE IN MALAYSIA INFLUENCES THE CONSERVATION PROCESS IN ORDER TO CONSERVE CVHB**

Similar to **RO<sub>2</sub>**, **RO<sub>3</sub>** is analysed using content analysis for the expert interviews from the three levels of conservation practitioners. The summaries of **RO<sub>3</sub>** were as follows:

- Strategically:
  - Both the respondents, **R<sub>1</sub>** (Deputy Commissioner of Cultural Heritage Department Malaysia) and **R<sub>2</sub>** (Director of Registration and Enforcement, Cultural Heritage Department Malaysia) mutually agreed that there are no **FM** positions in the Department of Cultural Heritage, Ministry of Information Communications and Culture of Malaysia; therefore, they hoped to have a **FM** position in the near future.
  
- Tactically:
  - Similar to the strategic level, both **R<sub>3</sub>** (Director of World Heritage Organisation of Malacca) and **R<sub>4</sub>** (Conservation Architect of Malacca City Council), perceived that there is **FM** no positions at the tactical level.
  - However, from a personal view, **R<sub>3</sub>** stated that the Commissioner of Heritage in the Department of Cultural Heritage, Ministry of Information Communications and Culture of Malaysia is currently the **FM** practitioner because she exercised the **FM** practice and involved in the conservation process in Malaysia.
  
- Operationally:
  - Overall, respondents at the operational level (4 respondents) stated that no **FM** position exists in the operational work.
  - Nevertheless, **R<sub>6</sub>** (Curator/Conservator II for Malacca Museum Corporation) asserted it is difficult to create any position such as **FM** because it needs five years to review a role or position.
  - On the other hand, **R<sub>7</sub>** (Curator Assistant for Malacca Museum Corporation) perceived, tactically, conservation architects exercised the **FM** practice in conserving heritage buildings in Malacca' WHC.

Referring to the literature, **FM** practice in Malaysia has emerged during the 1990s in the public sector in building care and Multinational Corporations or MNCs (Pillay, 2002; Kamaruzzaman and Ahmad Zawawi, 2010; Syed Mustafa & Adnan, 2008; Che Ani *et al.*, 2008; Kassim, & Hudson, 2006; Tobi, 2010; Sulaiman, 2012; Ong, 2009).

Hence, according to a study, the reality of **FM** in Malaysia is that it is still in its infancy and fragmented due to limited knowledge and awareness of its importance (Noor and Pitt, 2010; Lee 2009). However, **FM** development in Malaysia is perceived to be progressing and is in the preliminary phase compared to Hong Kong and Singapore (Moore and Finch, 2004).

Therefore, as a Critical Realist, the discovery of the “reality” of **FM** in conservation of a heritage building in Malaysia is observed. Hence, the sources of evidence from three levels of conservation practitioners (strategic, tactical, and operational) have indicated that the current **FM** practice in the conservation field in Malaysia has not yet been established and exercised.

The findings and analysis from the series of eight expert interviews showed that the **FM** position has not yet been undertaken at the strategic, tactical, and operational levels of conservation practice in Malaysia. This might be due to fragmented knowledge in the application and multidisciplinary role of **FM** in building care.

#### **9.3.4 RO<sub>4</sub>: DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CVHB IN MALAYSIA FROM THE PERSPECTIVE OF FM**

In **RO<sub>4</sub>**, for developing a theoretical framework for conserving **CVHB** from **FM** perspective, expert views on the perception of **FM** in mapping a framework were obtained. The expert views have linked and integrated the characteristics of **CVHB** with **FM** perspectives. The responses were stratified accordingly as follows:

- Strategically:
  - In the Expert Interview, **R<sub>1</sub>** (Deputy Commissioner of Cultural Heritage Department Malaysia) has linked **CVHB** variables such as **SOCIAL** and **HISTORIC** with **FM** perspectives of **PEOPLE**, **PLACE**, **PROCESS**, and **TECHNOLOGY**.
  - According to **R<sub>1</sub>**:
    - i. **PEOPLE** for the current conservation practice is referring to the Commissioner of Heritage; and **PEOPLE** in the future has to:
      - (a) Understand all the characteristics of **CVHB** and have mastered the **NHA**, **OUV**, **GCHB**, and **CMP**.

- (b) Have a conservation background in the process of conservation, and the knowledge, **HISTORIC** value, and heritage building materials.
  - ii. **SOCIAL** value integrates and epistemological constructed with **PLACE** as the functionality of a heritage building which illuminates its identity, historical events, and as a tourism spot.
  - iii. **PROCESS** consists of conservation process which includes the operation and management of a heritage building.
  - iv. **TECHNOLOGY** is refer to the practice of exercising the appropriate technology as a mechanism, and materials that assist the conservation activity which includes changing the terracotta roofs and mixing lime, plaster of a heritage building.
- As for **R<sub>2</sub>** (Director of Registration and Enforcement, Cultural Heritage Department Malaysia) has linked the **CVHB** of **SOCIAL**, **ECONOMIC**, **HISTORIC**, **AESTHETICAL**, and **SCIENTIFIC** with **FM** perspectives of **PROCESS** and **TECHNOLOGY**. He has generally evaluated the **CVHB** in a broader context of conservation practice that highlights the significant aim of conserving **CVHB** from **FM** perspectives in order to achieve the integrity and authenticity of a heritage building in Malaysia.
- Tactically:
    - At the tactical level, most of the **CVHB** such as **SOCIAL**, **ECONOMIC**, **HISTORIC**, **AESTHETICAL**, **AGE**, and **ECOLOGICAL** with **FM** perspective of **PEOPLE**, **PLACE**, **PROCESS**, and **TECHNOLOGY** were explained by **R<sub>3</sub>** (Director of World Heritage Organisation of Malacca).
    - **R<sub>3</sub>** has elaborated as follows:
      - i. **R<sub>3</sub>** has distinguished **PEOPLE** for the current conservation practice which is the Commissioner of Heritage because she has exercised **FM** practice in the organisation; and **PEOPLE** in the future who undertake **FM** practice should:

- (a) Understand all the characteristics of **CVHB** and the vital documents of **NHA**, **OUV**, **GCHB**, and **CMP** such as the **HISTORIC** value;
  - (b) Have a conservation background and knowledge;
  - (c) Have the **FM** roles, team work, and being responsible for external factors, including a heritage building as a tourist attraction, and caring capacities; and
  - (d) Take part in the preliminary process of evaluating a heritage building in Malaysia.
- ii. **PLACE** indicates the memory, historical events such as a battlefield or colonial place and as a tourism spot and attraction. It indicates the **HISTORIC** value. Hence, **HISTORIC** value is affiliated to the **SOCIAL** value.
  - iii. The **AGE** value and **PLACE** reflects the existence of a heritage building.
  - iv. The **ECOLOGICAL** value refers to the overall surroundings of a **PLACE**.
  - v. The **PROCESS** is referred to as the conservation and maintaining the **AESTHETICAL** value of a heritage building. It includes the conservation principles (**GCHB**) in maintaining the roof, walls, and windows.
  - vi. **TECHNOLOGY** consists of the practice of applying appropriate technology and materials to sustain a heritage building.
- However **R<sub>4</sub>** (Conservation Architect of Malacca City Council) has a deficiency of knowledge of **CVHB** and fragmented views on **FM** perspective. The rigidity and dependability on **HISTORIC** value and architecture perspective leads **R<sub>4</sub>** to only evaluate the current position as the conservation architect tactically.



- Operationally:
  - The majority of respondents (3 out of 4 people), at the operational level provided expert views on the integration of **CVHB** with **FM** perspectives. The participants have linked the operational work of conservation with the characteristics of **CVHB** and **PEOPLE, PLACE, PROCESS, and TECHNOLOGY**.
  - **R<sub>5</sub>** (Curator/Conservator I for Malacca Museum Corporation) stated the following:
    - i. **PEOPLE** of **FM** should consist of:
      - (a) Individual leadership competency;
      - (b) Efficiency;
      - (c) Honesty; and
      - (d) A sense of love for heritage buildings in Malaysia.
    - ii. **PLACE** refers to the famous *Stadhuys* building in Malacca; hence the **PROCESS** and **TECHNOLOGY** is described which is linked with the characteristics of **CVHB**.
    - iii. The *Stadhuys* building illuminates **SOCIAL; POLITICAL; HISTORIC; AESTHETICAL; SCIENTIFIC;** and **AGE** values.
    - iv. The **PROCESS** indicated the conservation and maintaining the physical condition of the *Stadhuys* building. It will sustain the characteristic of **SOCIAL; HISTORIC;** and **AESTHETICAL** values. Thence, the **PROCESS** involved the preliminary study of the heritage buildings included the operation and maintenance of walls, roof, and windows.
    - v. For the **TECHNOLOGY** of conserving the *Stadhuys* building, a practice of applying “Appropriate Technology” was applied such as in composition of building materials (lime and plaster) in sustaining the physical outlook of a heritage building. The composition of materials was being sent to the MINT (Malaysian Institute for Nuclear Technology) or USM (University of Science of Malaysia).

- **R<sub>6</sub>** (Curator/Conservator II for Malacca Museum Corporation) has provided opinions on almost all the characteristics of **CVHB**, excluding the **AGE** value in conserving a heritage building. She also further elaborates on:
  - i. **PEOPLE** in **FM** should have knowledge of conservation of heritage buildings such as technologies and humidity control.
  - ii. **PLACE** refers to the functionality of the *Stadhuys* building in Malacca. During the colonial era, the functionality was as an administration office and currently it is used as a space for a tourist attraction.
  - iii. The **PROCESS** described the maintenance of the humidity control of the *Stadhuys* building.
- On the other hand, **R<sub>7</sub>** (Curator Assistant for Malacca Museum Corporation) only explained about **HISTORIC** and **AGE** values which are vital in conservation in Malacca. She also further elaborated on the perspective of **PROCESS** and **TECHNOLOGY** in conserving the *Stadhuys* building. It includes the Dilapidation Study; dampness monitoring which consists of scraping the walls and Cocon techniques; the lime cement plaster durability test; and roof maintenance.
- **R<sub>8</sub>** is an independent conservator who was appointed by the Department of Cultural Heritage Malaysia to carry out the operational work of conserving the *Stadhuys* Building in Malacca. His expert opinion is below:
  - i. **R<sub>8</sub>** he has linked **CVHB** of **HISTORIC**, **AESTHETICAL**, and **AGE** as the needed values in conservation.
  - ii. He then further explained and discussed the **PROCESS** and **TECHNOLOGY** in conserving the *Stadhuys* building. According to **R<sub>8</sub>**:
    - (a) There are difficulties in conserving a heritage building such as uncommon and hard to find materials in the market and unskilled workers. Due to this, **HISTORIC**, **AESTHETICAL**, and **AGE** values tend to be lost.
    - (b) There is no periodical maintenance for a heritage building in Malacca. Only when it is damaged will it be repaired. He

suggested the **FM** position should be in place to monitor the operational work in Malaysia.

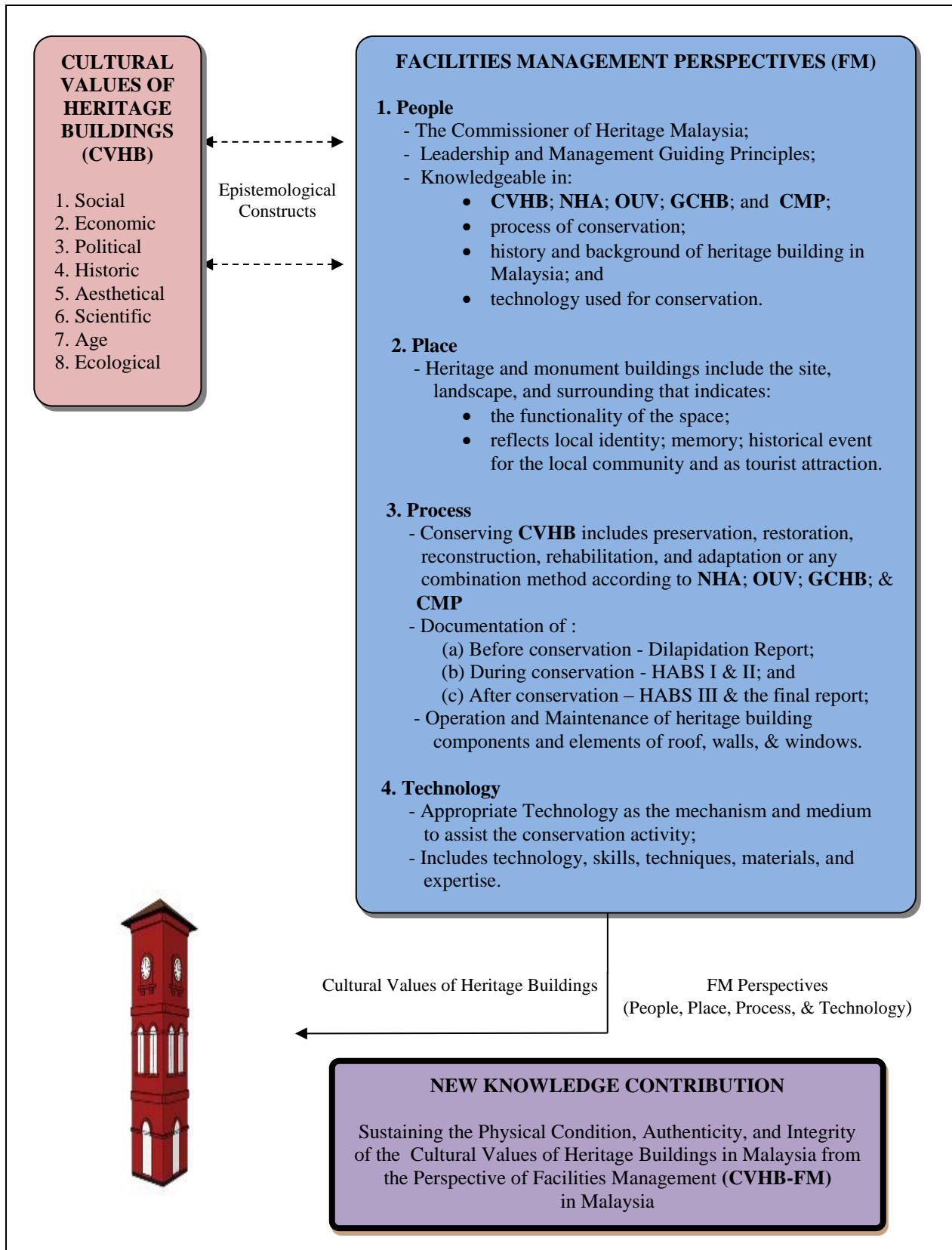
- (c) As an appointed conservator, **R<sub>8</sub>** is forbidden to participate in the preliminary process of conservation which includes the Dilapidation Study, work scope, the conservation cost, and the time-frame of the conservation project. He only carried out the operational work of conserving the roof and monitoring wall dampness of the *Stadhuys* building in Malacca. Therefore, **R<sub>8</sub>** has suggested being included in the decision-making process at the strategic level.

Based on the responses above, it has been indicated that all eight classifications of **CVHB** (social, economic, political, historic, aesthetical, scientific, age, and ecological) have been epistemologically constructed with **FM** perspectives (people, place, process, and technology) The respondents from Strategic, Tactical, and Operational levels of conservation practitioners have provided expert views on the two main variables of the research.

### **9.3.5 RO<sub>5</sub>: VALIDATION OF THE THEORETICAL FRAMEWORK FOR CONSERVING CVHB-FM IN MALAYSIA**

**RO<sub>5</sub>** is to validate the initial framework of conserving **CVHB** from **FM** perspectives in Malaysia. The findings of the validation of Focus Group Discussions at the Strategic level confirmed and agreed that the two main variables which are **CVHB** and **FM** perspectives have recognised the framework should be established. All eight criteria of **CVHB**, which were **SOCIAL - CVHB<sub>1</sub>**; **ECONOMIC - CVHB<sub>2</sub>**; **POLITICAL - CVHB<sub>3</sub>**; **HISTORIC - CVHB<sub>4</sub>**; **AESTHETICAL - CVHB<sub>5</sub>**; **SCIENTIFIC - CVHB<sub>6</sub>**; **AGE - CVHB<sub>7</sub>**; and **ECOLOGICAL - CVHB<sub>8</sub>** were endorsed as vital. Therefore, **FM** perspectives of **PEOPLE - FM<sub>1</sub>**; **PLACE - FM<sub>2</sub>**; **PROCESS - FM<sub>3</sub>**; and **TECHNOLOGY - FM<sub>4</sub>** were discussed. The validations were made in **Figure 16**.

**Figure 16:** The Theoretical Framework for Conserving Cultural Values of Heritage Buildings from the perspective of Facilities Management (CVHB-FM) in Malaysia.



Their validations were as follows:

1. From the **FM** perspective of **PEOPLE**, the participants validated the role of Commissioner of Heritage who is exercising the role of **FM** with the element of leadership management and guiding principles in the overall section of the Department of Cultural Heritage Malaysia. This includes the team building and cooperation between the Commissioner of Heritage with others such as the Conservation Unit and the Registration and Enforcement Unit.
2. **PLACE** which is focusing on the *Stadhuys* building is defined as functioning as the identity, memory, and a historical event for the local community and as a tourist attraction.
3. The **PROCESS** which the respondents validated as the conservation work that consists of the overall process of conserving the whole heritage building. However, for the *Stadhuys* building, conserving the roof, walls, and windows are the major building components and elements of a heritage building.
4. The validation participants agreed that the overall aim of the research is to sustain the physical condition of the Cultural Values of Heritage Buildings in Malaysia from the perspective of Facilities Management (**CVHB-FM**) by developing a theoretical framework. Therefore the Director of the Registration and Enforcement Unit or **R<sub>2</sub>** suggested specifically, the goal of conservation is to sustain the “authenticity and integrity” of the heritage buildings in Malaysia.

#### 9.4 Contribution to Knowledge

The value of this study lies in the development of a theoretical framework for conserving Cultural Values of Heritage Buildings (**CVHB**) in Malaysia from the perspective of Facilities Management (**FM**). At the preliminary phase of the study, it was found that there exists a knowledge gap in the **FM** practice in the conservation field. The multi-disciplinary role of **FM** which integrates the perspective of **PEOPLE**, **PLACE**, **PROCESS**, and **TECHNOLOGY** were applied in conserving a heritage building. The epistemologies of **CVHB** and **FM** perspectives were constructed in the process of developing the framework. Hence, a case study in Malacca’s World Heritage City of Malaysia which consists of an embedded level of conservation practitioners at the Strategic, Tactical, and Operational level were carried out. The information-

rich data from the experts has mapped the framework. Therefore, from the theoretically validated Focus Group Discussion (FGD), the **CVHB-FM** framework is established. The contribution can be summarised as follows:

1. Within the context of the theoretical spectrum, the main findings of this study which developed into a conservation **CVHB-FM** framework, will contribute to the current body of knowledge in both **FM** and the conservation management area.
2. It is worth mentioning that currently most of the **FM** literature discusses **FM** as a business enabler and in the context of hospitals, schools, shopping complexes, and care homes. There is limited literature discussion about **FM** from the context of conservation specifically the building care of a heritage building. Therefore, it is hoped that the outcome of this research could also bridge the gap of deficiencies in theory and practice in this area.
3. As the approach that is used is qualitative in nature, the conservation **CVHB-FM** framework is expected to be informative and reference to it could be more relevant to such a transitional country like Malaysia.
4. In the context of practical contribution, since the conservation **CVHB-FM** framework is developed based on experiences of embedded levels of conservation practitioners, the framework could be used as a guideline in conservation **CVHB** from an **FM** perspective. Hence, the identified and justified qualitative variables will inform the embedded level of practitioners on the elements which need to be focused on during the preliminary phase of conserving a heritage building.
5. Since there are no **FM** roles at the embedded levels of the conservation organisations, the outcome of this research could be used for awareness purposes of the vitality of positioning **FM** in the conservation management field in Malaysia and other developing countries.
6. The eight classifications of Cultural Values of Heritage Buildings or **CVHB** are referred to as **SOCIAL; ECONOMIC; POLITICAL; HISTORIC; AESTHETICAL; SCINETIFIC; AGE; and ECOLOGICAL** that corresponds with **FM's PEOPLE, PLACE, PROCESS, and TECHNOLOGY** and could provide a comprehensive document of reference for conservation management and **FM** practice in Malaysia and other developing countries.

## 9.5 Research Limitations

In the course of conducting this study, the following limitations were encountered:

- a) There are only limited sources of appropriate literature relevant to the research scope mainly concerning **FM** in the conservation field. Therefore, the researcher has integrated the conservation field with **FM** practice. Positively, this research has made a contribution to the current literature context.
- b) The number of respondents was restricted to eight participants at different organisational levels which were from Strategic, Tactical, and Operational. However, the information-rich data and expert opinions from the participants have contributed to the accomplishment of the research aim and objectives.
- c) Initially, at the earliest phase of the research, three strategic respondents from the Conservation Unit of the Department Cultural Heritage Malaysia were selected to be interviewed. However, before the process of the interview session begins, one of the respondents mentioned that this research was only suitable for the highest Strategic postholder to be interviewed. Hence, three of the respondents withdrew from the interview session. However, these three respondents have participated in the validation of the framework because they were involved in the conservation process in Malaysia.

## 9.6 Recommendations for Future Research

This study has established a “Theoretical Framework for Conserving Cultural Values of Heritage Buildings (**CVHB**) in Malaysia from the perspective of Facilities Management (**FM**)”. Generally the theoretical framework would be informative, as to “how” the integration of eight classifications of Cultural Values (social, economic, political, historic, aesthetical, scientific, age, and ecological) corresponded with **FM**’s people, place, process and technology in conserving and sustaining a heritage building from the magnitude of loss. Globally, conserving a heritage building from the **FM** perspective could minimise the dominance of heritage postholders in the decision-making process.

Specifically, this research outcome can be undertaken as guidelines for conservation practitioners in Malaysia in positioning **FM** in their organisations. The vitality of the needs of **FM** as a multidisciplinary role cannot be neglected. Therefore, from the literature and research outcome, the current practice of **FM** in Malaysia is still at the preliminary phase. Currently in Malaysia, the “real” role of **FM** has not yet been created by the government of Malaysia. Thus, as a transitional country, there is a need to position **FM** in each governmental body and ministry. Future research can use the concepts and findings of this study as a guideline and starting point to explore the familiarity and multidisciplinary role of **FM** practice in conserving a heritage building in Malaysia.

As part of the recommendations for future research, it is suggested to have a study in a different setting such as applying the concept in other transitional and developing countries in Asia such Indonesia or Thailand. Comparisons of practice in developed and developing countries are also recommended.

The researcher also suggests that future research be conducted in the developed countries such as the United Kingdom, United States, Australia, France, Germany, Netherlands, and Japan where **FM** is established. The inclusion of **FM** in the decision-making process in evaluating and conserving might contribute to a systematic process of Cultural Heritage Management.



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## Appendix A: Approval Letter to Conduct Research I



25 June 2012

To whom it may concern

**Re: Mr. Hasif Rafidee bin Hasbollah (ID: @00281789), School of the Built Environment, University of Salford, Greater Manchester, United Kingdom**

This is to confirm that Mr. Hasif Rafidee bin Hasbollah is a full time PhD Researcher at the School of the Built Environment, University of Salford, Greater Manchester, United Kingdom. He is currently undertaking his PhD research along the theme of 'A Theoretical Framework for Evaluating Cultural Values for Heritage Buildings from the Perspective of Facilities Management (CVH/m) in Malaysia' under my supervision. He is interested in getting information from you/your organisation for his research. I would very much appreciate if you could provide him the access for information related to his study. Terms of confidentiality will be adhered to in reporting the findings based on the discussions he will be having with you and the information he will be collecting from your organisation.

If you need any more details, please do not hesitate to contact me.

Thank you.

Yours faithfully,

A handwritten signature in black ink, appearing to read 'E Finch'.

25<sup>th</sup> June 2012

Professor Edward Finch  
School of the Built Environment  
University of Salford  
Greater Manchester  
M5 4WT, UK  
Email: [e.finch@salford.ac.uk](mailto:e.finch@salford.ac.uk)  
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## Appendix B: Approval Letter to Conduct Research II

University of  
**Salford**  
MANCHESTER

26 April 2013

To whom it may concern

**Reference: Mr. Hasif Rafidee Bin Hasbollah (ID:@00281789), PhD Research Student.  
School of the Built Environment, University of Salford, Greater Manchester,  
United Kingdom.**

This is to confirm that Mr. Hasif Rafidee bin Hasbollah is a full time PhD Researcher at the School of the Built Environment, University of Salford, Greater Manchester, United Kingdom.

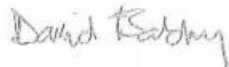
Hasif is currently undertaking his PhD research along the theme of 'A Theoretical Framework for Conserving Cultural Values of Heritage Building from the Perspective of Facilities Management (*CVHBfm*) in Malaysia' under my supervision. He is interested in obtaining information from /your organisation to support his research.

I would very much appreciate if you could provide him the necessary access to the information required relating to his study, which he will articulate. Terms of confidentiality will be adhered to in reporting the findings based on the discussions he will be having with you and the information he will be collecting from your organisation.

If you need any more details, please do not hesitate to contact me.

Thank you.

Yours faithfully,



David Baldry  
School of the Built Environment  
University of Salford

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## Appendix C: Interview Guidelines

### SUMMARY OF THE RESEARCH

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#### A Theoretical Framework in Conserving Cultural Values of Heritage Buildings from the Perspective of Facilities Management in Malaysia

##### **Brief Description**

Cultural heritage is an expression the ways of living developed by a community and passed down from one generation to generation. As part of human creation, cultural heritage produce the representation of Cultural Values of Heritage Buildings that illuminates the local identity, source of memory, and as a tourist attraction.

However, conflicts occurred as value clash and goal incompatibility among the heritage stakeholders in engaging the Value Based Management in conserving the Cultural Values of Heritage Buildings.

This research is aimed to develop a theoretical framework in conserving Cultural Values of Heritage Buildings from the perspective of Facilities Management in Malaysia. This theoretical framework could serve as a guideline in sustaining the physical condition of the heritage buildings in Malaysia.

##### **Respondents**

The respondents for this research will consist of the conservation practitioners who are involved in the conservation of heritage buildings in the State of Malacca, Malaysia. This include strategic level, which are the decision and policy makers from the Ministry of Information, Communication and Culture; tactical level, organisational bodies who are involved in the implementing and monitoring the conservation works of heritage buildings; and finally the operation level, which are the people who are carrying out the conservation work in the state of Malacca, Malaysia.

##### **Private and confidential**

The data obtained from the parties involved will never be disclosed to any outside parties and will be used solely for the purpose of the study by the researcher only. All information is considered **private and confidential**.

##### **Benefits for the individuals and organisations interviewed**

Answers to be found on the problem being studied are very useful to your organisation in conserving heritage buildings. The theoretical framework will be developed according to the answers given that will help to improve the process of conserving the heritage buildings in Malaysia. Meeting of each interview session will take approximately 45-60 minutes. A set of interview questions will be sent to respondents before the session take place.

## INTERVIEW GUIDELINES

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### **Development of the theoretical framework of CVHB with FM perspectives**

To fulfil this study, there are two main variables have identified which are **CVHB** and **FM** perspectives. These two variables have been put forward in developing the theoretical framework in conserving **CVHB** from the perspective of **FM** in Malaysia (Please refer to **Figure 1** attached for the display and linkages between **CVHB** and **FM**).

This interview guideline consist five main topics. There are:

#### **A: THE RESPONDENT BACKGROUND**

#### **B: UNDERSTANDING THE CURRENT PRACTICE OF THE CONSERVATION**

#### **C: IDENTIFYING THE CURRENT FM PERSPECTIVE IN INFLUENCING THE CONSERVATION PROCESS**

#### **D: DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CULTURAL VALUES OF HERITAGE BUILDINGS FROM FACILITIES MANAGEMENT PERSPECTIVE**

#### **E: SUGGESTIONS/OPINIONS/VIEWS**

Respondents are free to express any opinion that is considered necessary and relevant. The involvement of respondents in this study is highly appreciated.

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#### **A: THE RESPONDENT BACKGROUND**

Can you please explain and elaborate your job position and job description in your organisation?

#### **B: UNDERSTANDING THE CURRENT PRACTICE OF THE CONSERVATION**

1. Can you please explain and elaborate the current practice of the conservation process that has been undertaken by your organisation?
2. What are the documents used in the current practice?
3. How do the documents applied to the current practice of conservation?



### **C: IDENTIFYING THE CURRENT FM PERSPECTIVE IN INFLUENCING THE CONSERVATION PROCESS**

The aim of conservation is to sustain the physical aspects of the heritage buildings. However, there is a deficit in the Value-Based Management in conserving the heritage buildings. Due to this, **FM** perspectives that integrate the element of people, place, process, and technology will be undertaken to address the shortfall.

Can you please explain and elaborate how the current **FM** perspective (people, place, process, and technology) in Malaysia influences the conservation process in order to conserve **CVHB** (You can refer to **Figure 1** for the **FM** perspective display).

### **D: DEVELOPING A THEORETICAL FRAMEWORK FOR CONSERVING CULTURAL VALUES OF HERITAGE BUILDINGS FROM FACILITIES MANAGEMENT PERSPECTIVE**

Can you please explain and elaborate the linkages and integration of **CVHB** with **FM** perspectives in developing the theoretical framework for conserving **CVHB** from **FM** perspectives.

These include the eight criteria of **CVHB** with the four **FM** perspectives (You can refer to **Figure 1** for the **CVHB** and **FM** perspective display).

### **E: SUGGESTIONS/OPINIONS/VIEWS**

Please feel free to provide any suggestions/opinions/views regarding this research.

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Thank you for your time and cooperation.

For any clarification and queries regarding this study, you can contact the researcher or the supervisor of the researcher.

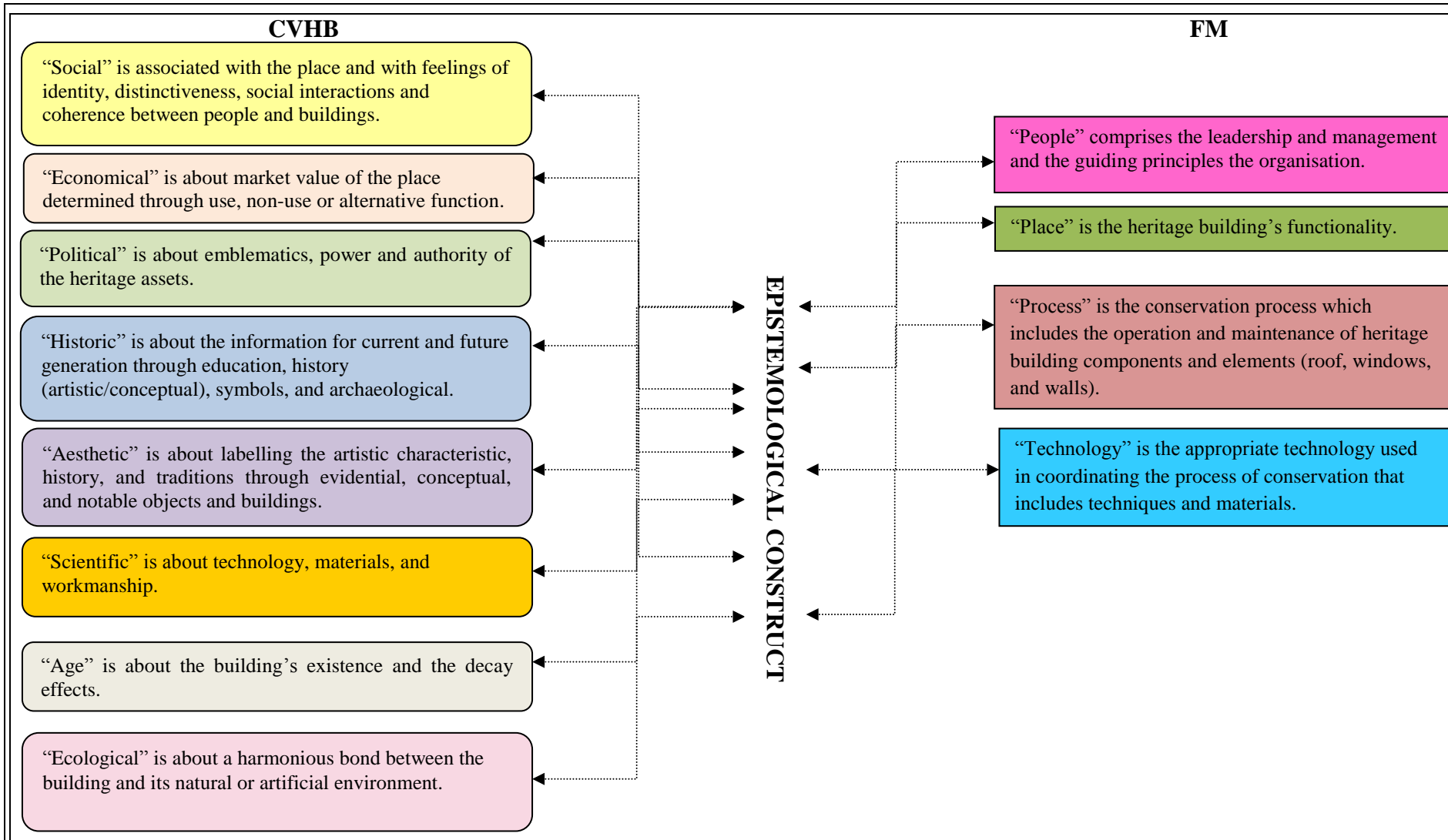
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**Figure 1:** The Linkages and Integration of Cultural Values of Heritage Buildings with Facilities Management perspectives.





**Appendix D: Images of Conserving the Roof of the *Stadhuys* Building in Malacca.**



Picture 1: Temporary Roof of the *Stadhuys* Building.



Picture 2: The Original Roof of the *Stadhuys* Building.

## **Appendix E: Publications**

### **Conferences:**

1. Bin Hasbollah, H.R. and Finch, E (2012). Evaluating the Implementation of Facilities Management as a Rural Enabler: A Malaysian Case Study, *Proceedings in Joint CIB W070, W092, & TG 72, International Conference: Delivering Value to the Community 2012*, Cape Town, South Africa, 23<sup>rd</sup> - 25<sup>th</sup> January 2012.
2. Nawi, M. N. M., Lee, A., Kamarul, K.A.M. Bin Hasbollah, H. R. and Harun, A. N. (2012). Review of Fragmentation Issue that Affect to the Implementation of Industrialised Building System (IBS) in Malaysia Construction Industry. *Proceedings in International Conference in Humanities, Social Sciences and Technology (ICHSSST 2012) & Global Business Management Conference (GBMC 2012)*, Malaysian Student Society of Cardiff and Cardiff Nusantara Network, Cardiff, 16<sup>th</sup> July 2012.

### **Journals:**

1. Bin Hasbollah, H.R. and Baldry, D. (2014). Conserving Cultural Values of Heritage Buildings from the Facilities Management Perspective in Malaysia. *Journal of Facilities Management*, Volume: 12, Issue 2 (Print Published: 6<sup>th</sup> May 2014).
2. Bin Hasbollah, H. R. and Baldry, D. (2014). Heritage Buildings Conservation and Facilities Management Perspective: A Literature Review. *Journal of Cultural Heritage Management and Sustainable Development*. (In Review).