



DEPARTMENT OF BUILDING SURVEYING
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING
UNIVERSITI TEKNOLOGI MARA

PERFORMANCE AND EVALUATION OF IN HOUSE
MAINTENANCE TEAM

This academic project is submitted in partial fulfillment of the
requirement for the Bachelor of Building Surveying (Hons.)

NURUL ASHIKIN BT NORRIHAN
(2006136317)

OCTOBER 2008

ABSTRACT

The maintenance management is become more important these days. Many of the company are more alert on the needs of the building in achieving a high maximum used for building occupant. Due to that, a maintenance management system is needed to plan, managed and also provided all the building needs. To manage the maintenance in building an organization should develop the structure of maintenance for workforce who can be divided as in house, out sourced and mix workforce. This academic project was intends to look at general practice of maintenance management of resort / chalet as well as to evaluate the performance of in-house maintenance team. In house maintenance management can be defined as maintenance management manpower appointed directly by the company itself. Finding from the study show that most of the maintenance management in resort / chalet adopts the principle of maintenance components such as maintenance policy, maintenance expenditure, maintenance programmed, maintenance strategy, maintenance manual and maintenance standard. Finding from the study found out that resort / chalet use direct and indirect workforce. According to this topic it is focus on performance and evaluation of in house maintenance team. To measure evaluate the performance, there are some specific perimeter based on interview and questionnaire etc. for example facility satisfaction, maintenance satisfaction, maintenance organization, maintenance team etc. which is explain detail in this study.

TABLE OF CONTENT

	Page
Acknowledgements	i
Abstract	ii
Table of Contents	iii
List of Photos	iv
List of Charts	v
List of Figures	vi
List of Tables	vii
Chapter 1 Introduction	
1.0 Introduction	1
1.1 Issue	2
1.2 Research Objective	3
1.3 Scope of Research	3
1.4 Research Methodology	4
1.5 Arrangement of Chapter	5
Chapter 2 Maintenance Management	
2.0 Maintenance Management	7
2.1 Definition of Maintenance Management	7
2.2 Maintenance Management Process	10
2.3 Maintenance Organization	13
2.4 Maintenance Policy	16
2.5 Maintenance Approach	19
2.5.1 Maintenance Strategy	20
2.5.2 Direct labor or Contract	21
2.5.3 Ad-hoc specialists	21
2.5.4 Maintenance contract	22

Chapter 3 Performance and Evaluation by In-house Maintenance team

3.1	General view of in-house maintenance	23
	3.1.1 Introduction	23
	3.1.2 Advantages derives from in-house staff	24
	3.1.3 Disadvantages attributed to in-house staff	25
	3.1.4 In-house Team Provision	26
3.1	Performance and Evaluation of Maintenance	27
	3.2.1 Performance Criteria	27
3.3	Pro and Contra of in-house maintenance	30
3.4	Definition Resort	31
	3.4.1 Resort Destination	31
	3.4.2 Destination Resort	32
3.5	Structure Maintenance Organization Resort	32
	3.5.1 Internal Maintenance Structure	33
	3.5.2 Contract Maintenance Structure	34

Chapter 4 Case Study

4.1	Introduction	36
	4.1.1 Objective	36
	4.1.2 Limitations	37
	4.1.3 Scope of Study	37
	4.1.4 Research Methodology for Case Study	38
4.2	INTEKMA Resort & Convention Centre	39
	4.2.1 Background and Property	39
	4.2.2 Organization and Management	44
	4.2.2.1 Organization and Management Chart	44
	4.2.3 Overview of Maintenance Policy	46
	4.2.4 Maintenance Strategy and Approach	46
4.3	The Legend Water Chalets	47
	4.3.1 Background and Property	47
	4.3.2 Organization and Management	53
	4.3.2.1 Organization and Management Chart	53

Chapter 1: Introduction

1.0 Introduction

Building maintenance has consistently been treated as the 'poor relation' of the construction industry, attracting only a tacit recognition of its importance, both within the industry and amongst building owners. This manifests itself in a general lack of understanding of both its scope and significance by all parties to the building from the procurement, construction, and management process.

In consequence, the backlog of repair and maintenance required to bring the country's building stock to a minimum acceptable level continues to grow at an unacceptable rate. The condition of a building is central to the nation of building performance and must be considered throughout all phase of the building life cycle¹.

Maintenance should be carried out only when necessary to ensure the continued, safe, and profitable use of the building at acceptable levels of satisfaction. There is the possibility of extending the useful life of the elements of the building. Finding an appropriate maintenance strategy is the most difficult task facing by the maintenance management in determining an optimal approach to reduce the financial expenditure and total life cycle costs.

¹ Chanter, Barrie & Swallow, Peter (1992), *Building Maintenance Management*, 5th edition by Blackwell Science, London. Page 1.