TCP 09/60

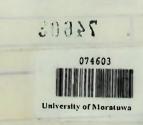
GUIDELINES FOR PLANNING AND DESIGNING FOR PEDESTRIANS IN THE STREETS.

(A case study of the Central Business District of Colombo)

A dissertation presented to the Department of Town & Country Planning University of Moratuwa

<u>පුස්තකා</u>ලය බොරටුව විශ්ව විදනලය. ශු ලං A00009

In Partial Fulfilment of the Requirement of the M.Sc. Degree course in Town & Country Planning



W.A.E.J. PERERA MARCH 1987.

"67"

74603

74603

## SYNOPSIS

Planning and designing for pedestrians in the streets has been the main concern of this study. The Central Business District of Colombo is been considered as the case study area for the exercise. This discussion has been persued in five Chapters.

The first chapter reviews the historical background of the great ancient cities being built to human scale where walking was the primary mode of transport. It also discusses how despite of its advantages of personal mobility the automobile made negative changes to the pedestrian society. Finally the opportunities arising to step back to the pedestrian scale in the future by the organized pedestrian programs carriedout in the western world has also been looked into.

An attempt has been made in the second Chapter to examine the role of the city of Colombo in the national context. Its concentration of different functions and activities as the capital city is studied in brief with special reference to traffic and transport problems created within the city as a consequence.

The third chapter is devoted to a discussion of some of the human physiological and psychological requirements and preferences that are to be taken in to consideration in planning and designing of pedestrian spaces. The studies carriedout in this regard in different developed countries have been examined as the basis for the entire chapter. Introduction to the Central Business District of Colombo is given in the first part of the fourth chapter. It describes the general characteristics of the area and the use and misuse of the sidewalks in the existing pedestrian facilities within the study area highlighting the problems studied in the process of the research.

Chapter five presents the conclusions of the study along with recommendations for creating a better environment for pedestrians in the Central Business District. Lastly the general guidelines are suggested for pedestrian planning and design, which could be applied to any town in the country.

## ACKNOWLEDGEMENT

My profound gratitude is due to Mr. A. L. S. Perera my supervisor, Head of the Department of Town and Country Planning, University of Moratuwa, Katubedda, for his useful suggestions, constructive criticism, and for spending his valuable time to read through this work.

My sincere thanks to Mr. N. Jayawardena, Engineering/ Planning Consultant, Urban Development Authority from whose knowledge I have benefited, and Mr. K. D. Fernando, Lecturer, Department of Town and Country Planning, University of Moratuwa for his advice and concern.

I wish also to express my gratitude to all persons and institutions for assisting me in numerous ways in this study and in particular to the officers in the Planning Division and the Division of Remote Sensing of the Urban Development Authority.

Finally I wish to offer my thanks to Mrs. A. Ruwanpura for undertaking the task of typing the script at short notice.

W. A. E. J. Perera

		Page
SYNOPSIS.		1
ACKNOWLEDGEMENT.		111
LIST OF MAPS.		iv
LIST OF TABLES.		v
LIST OF ILLUSTRATIC	NS	vi
INTRODUCTION.	in broken in bester	vii
CHAPTER I -	PAST AND PRESENT TRENDS OF PLANNING PEDESTRIAN SPACES.	1
CHAPTER II -	THE ROLE OF THE CITY OF COLOMBO AND ITS IMPLICATIONS IN TERMS OF TRAFFIC AND TRANSPORTATION.	8
CHAPTER III -	HUMAN AND SPACE CHARACTERISTICS RELATED TO PEDESTRIAN DESIGN.	22
CHAPTER IV -	EVALUATION OF PEDESTRIAN FACILITIES IN THE CENTRAL BUSINESS DISTRICT.	35
CHAPTER V -	CONCLUSIONS, RECOMMENDATIONS AND GUIDELINES.	80
BIBLIOGRAPHY.	••	90
APPENDIX		94



1.	Map of Study area - Colombo Central		
	Business District.		36
2.	Landuse Central Business District.	•	95
3.	Pedestrian flow in Central Business		
	District.	-	45
4.	Pedestrian Plan for Central Business		
	District.	•	96
5.	Traffic flow plan for Central Business	•	
	District.		97

....

1

.

1.	Landuse Breakup 1977 (City of Colombo).	98
2.	Issue of revenue licence by province in	
	Sri Lanka 1975 - 1980.	99
2.1	Growth of Motor Vehicle Licenced in	
	Colombo District.	11
2.2	Issue of revenue licences in Sri Lanka	
	by mode 1975 - 1980.	15
	terroritorial different spaces in tailorates this.	
3.	Composition of average daily traffic on a sample	2
	of roads in the Central Business District 1979.	100
4.	Existing widths of rods and pavements in	
	Central Business District.	101
5.	Land Extents in Central Business District 1981.	37
	and a contract of the second sec	
6.	Urban Landuse Patterns Central Business	
	District 1981.	39
7.	Floor space distribution pattern and intensity of	of
	development, Colombo Central Business District	. 102
8.	Peak hour pedestrian flow on selected roads.	44
9.	Number and square feet of area occupied by	
	different categories of impediments on	
	selected road stretches in the Central	
	Business District.	103
10.	Pedestrian casualties classified by Pedestrian	
10.	action 1980 - 85, Colombo Police Division.	59

25 1. Human Pacing and Sensory Zones. 2. Crossing Behaviour. 31 3. Growth of Floor space in Colombo CBA. 104 4. Trip origin, Purpose and Mode of Travel. 43 Two Ways of Determining Walkway Space 5. Needed by a Building. 105 6. Number of Accidents per Year on Roads Within the Central Business District. 61 Comparison of Sound and Noise Levels. 7. 106 8. Cross Section of a Road. 107



Page