

Foreword

For 35 years, I have had the good fortune to work for the City of Austin in a variety of executive capacities, including Director of Public Works and Transportation, Director of Planning and Development, Assistant City Manager, and for 18 years as Executive Director of Austin-Bergstrom International Airport (ABIA). If there is one thing I have learned, it is that the role of technological and environmental change will continue to accelerate, and sustainable organizations must have effective strategic and facility planning processes in place to succeed.

I first met the author, Associate Professor Jonathan Lian, when we were both trying to expand our knowledge of airport facilities planning at a week-long training session about 17 years ago. Throughout the week, I was very impressed with his insights and creative thoughts, to the point that when I got home, I contacted him about coming to Austin, Texas, to work for me at ABIA. Jonathan joined us in Austin in 2006. Throughout his stay in Austin, he was a major contributor to the strategic and facilities planning efforts that allowed ABIA to double in size over the next 10 years.

Facilities planning and design is a vital part of successful facility management. A well-planned and designed facility ensures that operations and maintenance can be smoothly carried out for the lifespan of the facility. This book is unique and much-needed as it fills this gap in facilities planning and design knowledge. It covers ten areas of facilities planning and design that facility professionals or students studying facility management and project management will find useful.

Jonathan is well qualified to write this book with his global experience in large facilities that he integrates with his teaching experience at the National University of Singapore.

The book is practical with examples drawn from various facilities to illustrate the ideas. It is written in an easy-to-understand manner and will be a useful reference for facility professionals or anyone who would like an introduction to facilities planning and design.

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(2001 to 2019)
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Preface

This book was created to provide undergraduate students in facilities management, project management and other built environment-related programmes with an introduction to facilities planning and design. Its coverage also enables it to double as an introduction to the subject, and it is recommended for budding facility planners, facility project managers, facility managers and other building professionals who would like to learn more about the essentials of facilities planning and design. The ten essentials of facilities planning and design found in this book are distilled from the author's extensive international working experience on large airport projects and facilities.

By learning about the planning and design processes related to facilities, readers will be able to do the following:

1. Align facilities planning and design with the organisation's strategic priorities.
2. Manage design consultants by understanding the planning and design process.
3. Manage the planning and design of the following spaces at different scales:
 - a) room and spaces in a building
 - b) building level
 - c) campus level (with multiple buildings spread over the campus)
4. Manage the use of existing space effectively in a facility.

This book covers the general aspects of facilities planning and design for both students as well as facility professionals currently working in owner-occupied facilities.

Examples will be drawn from the planning and design of airports and universities, which are large organisations with extensive campuses and are asset-heavy in terms of buildings. Students who are seeking careers in these complex facilities will benefit from learning about these ten essential areas of facilities planning and design covered in this book. Likewise, facility professionals working in these facilities and similarly complex facilities will also benefit.

The book is designed so that its chapters may be read either sequentially, or as individual stand-alone references or resources for specific aspects of facility planning, management and design.

This second edition has been extensively updated with new examples, case studies and references. The following are some of the key changes:

- Chapter 1 – new part about the RIBA's Plan of Work 2020
- Chapter 2 – new section on dealing with uncertainty in facility master planning
- Chapter 3 – new section about the BCA's QFM framework
- Chapter 4 – new case study about the accessible built environment in Singapore and a new example about school space standards
- Chapter 5 – new section containing examples of site selection processes and the site selection criteria
- Chapter 6 – expanded section about the URA's Long-Term Plan and a new section about the AUS2040 airport master plan
- Chapter 7 – expanded section about the EIA process in Singapore and the case study of the HKIA Three-Runway System
- Chapter 8 – updated section with an example of Singapore Government Budget 2021 and a new section about the City of Austin capital project explorer
- Chapter 9 – new section about hybrid working
- Chapter 10 – new example about space management at a large university campus.