# FIRMLY ANCHORED in Midair







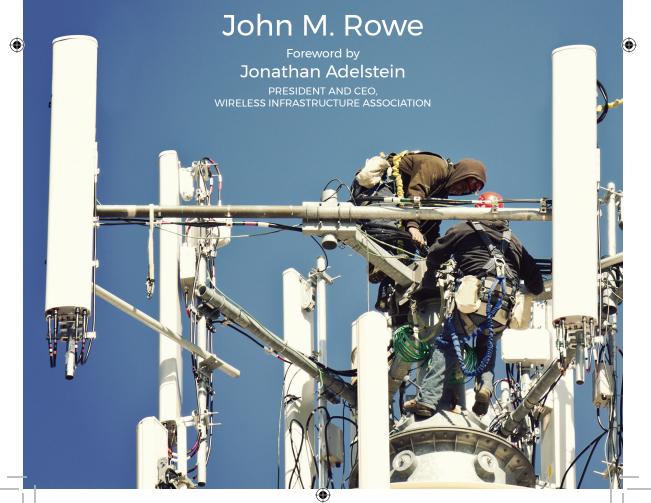








## THE HANDBOOK OF WIRELESS SITE ACQUISITION AND PERMITTING



## in Midair

## THE HANDBOOK OF WIRELESS SITE ACQUISITION AND PERMITTING

John M. Rowe

Foreword by Jonathan Adelstein

PRESIDENT AND CEO, WIRELESS INDUSTRY ASSOCIATION

Edited by Kelly Anne Lenkevich



## Firmly Anchored in Midair: The Handbook of Wireless Site Acquisition and Permitting

Copyright © 2017 by John M. Rowe

Cover and interior design by Pratt Brothers Composition

All rights reserved. This book or any portion thereof may not be reproduced or used in any manner whatsoever without the prior written permission of the author/publisher, except for the use of brief quotations in printed reviews or articles.

Printed in the United States of America

First Printing 2017

ISBN: 978-0-9980524-5-8 (paperback)

Telecom BirdDogs, LLC
P.O. Box 2523
Littleton, Colorado 80161-2523
United States of America
info@TelecomBirdDogs.com
www.TelecomBirdDogs.com

Unless otherwise noted, all scripture quotations are taken from the Holman Christian Standard Bible®, copyright © 1999, 2000, 2002, 2003, 2009 by Holman Bible Publishers. Used by permission. Holman Christian Standard Bible® and Holman CSB® are federally registered trademarks of Holman Bible Publishers.

#### Contents

Foreword	xii
Preface	xvii
List of Abbreviations	xxiii
Introduction	xxxv
Disclaimer	xxxix
Illustration Credits	xli

PART ONE. Introduction to Wireless Site Acquisition and Permitting	3
ECTION I. Orientation to Wireless Site Acquisition	7
CHAPTER 1. Industry Structure	II
CHAPTER 2. The Role of Site Acquisition	27
CHAPTER 3. Site Acquisition Contracting	37
CHAPTER 4. Wireless System Design	50
CHAPTER 5. Wireless Facility Components	59
chapter 6. Search Area Design	72

SECTION II. Site Search Due Diligence	83
ESSENTIAL FUNCTION 1. Search and identify specific properties as	
candidates for development based upon client-provided	
criteria, property owner interest, and the local application	
of land-use regulations.	86
CHAPTER 7. Search Area Assignment	88
снартек 8. Search Area Mapping	95
CHAPTER 9. Zone-ability	IIO
CHAPTER 10. Constructability	123
CHAPTER II. Lease-ability	135
CHAPTER 12. Property Owner Communications	149
SECTION III. Site Selection Analytics	167
ESSENTIAL FUNCTION 2. Assemble and submit a detailed	
report identifying qualifying candidates for selection	
consideration.	169
chapter 13. Search Area Report	171
ESSENTIAL FUNCTION 3. Participate in the site selection discussion	
by answering other team members' questions, conducting	
further research, and reporting prior to site selection.	179
CHAPTER 14. Project Team	181
ESSENTIAL FUNCTION 4. Complete in-depth report to satisfy data	
requirements for the team to proceed with the project to	
develop wireless infrastructure on the selected site.	192
снартеr 15. Site Candidate Information Package	194
Part One Conclusion	203
Part Two. Wireless Site Development	207
SECTION IV. Project Preparations	211
ESSENTIAL FUNCTION 5. Coordinate, schedule, and track site due	
diligence visits with or for technical teams.	213
CHAPTER 16. Project Initiation	215
essential function 6. Prepare, coordinate, and process	
applications for collocations.	224

CHAPTER 17. Collocation Applications	226
essential function 7. Coordinate, order, and track title	
work, site surveys, lease exhibits, environmental reports,	
regulatory reports, and construction drawings.	235
CHAPTER 18. Title Insurance Commitment	238
essential function 8. Advise and assist project managers and	
construction managers with project perspective. Interpret,	
review, and redline, if necessary, site sketches, surveys, and	
construction drawings.	247
снартек 19. Site Design—Standard Drawings and Reports	249
CHAPTER 20. Site Design—Supplemental Drawings and Reports	263
SECTION V. Space Rights	273
essential function 9. Negotiate agreements to acquire or	
modify space and use rights for infrastructure installation	
and operation. Obtain property owner approval on	
engineering drawings and zoning/permit applications.	276
CHAPTER 21. Initial Space Rights	278
CHAPTER 22. Leasing Concepts	285
CHAPTER 23. Collocation Agreements	296
Chapter 24. Lease Provisions	304
CHAPTER 25. Purchase Contracts	323
CHAPTER 26. Miscellaneous Agreements	331
essential function 10. Coordinate the process to finalize	
desirable space rights agreements and actively pursue	
processing so that projects may progress without	
unnecessary delays.	347
CHAPTER 27. Final Space Rights	350
SECTION VI. Local Permit Rights	363
essential function 11. Prepare, complete, obtain property	
owner approval for, and submit zoning and building	
permit applications to local authorities. Serve as the point	
of contact for local inquiries.	366
CHAPTER 28. Local Permit Applications	368

#### x CONTENTS

снартек 29. Planning Staff Review	379
ESSENTIAL FUNCTION 12. Coordinate the permit process, including	
support from vendors and outside counsel. Prepare for	
and attend public hearings, as necessary, to secure permit	
approvals.	390
CHAPTER 30. Community Due Diligence	392
CHAPTER 31. Local Governing Bodies, Public Hearings, and Final	
Documentation	417
SECTION VII. Real Estate Entitlement Completion	435
essential function 13. Track, expedite, and document the	
progress of events leading to the acquisition of all real	
property entitlements necessary to build and operate	
wireless infrastructure (Project Management).	437
essential function 14. Coordinate handoff of the project	
with real estate entitlement close-out documentation for	
construction personnel to commence site construction	
(Close Out).	447
essential function 15. Remain the primary property owner and	
jurisdiction project contact regarding issues as they arise	
(Customer Service).	451
Part Two Conclusion	453
APPENDIXES	
Appendix A: Associations	457
Appendix B: Federal Agencies	460
Appendix C: Real Estate Commissions	463
Appendix D: Sources for Further Reading about Spectrum	
3	466
Appendix E: Wireless Site Owners and Managers	469
Notes	472
Index	508

## Part One

## Introduction to Wireless Site Acquisition and Permitting

Part One is the first half of the story about how to select wireless infrastructure facility locations. Part Two will take the selected site and prepare it for implementation. Capital budgeting precedes Part One activities. Construction takes over after Part Two.

The Section I dialogue starts with an explanation of the importance of infrastructure in the commercial mobile services or wireless industry and gravitates to a discussion of the environment in which the site acquisition role exists. Twelve qualifications and fifteen essential functions are provided for the role of site acquisition. Detailed milestones are presented that cast light on the typical tasks and outcomes derived from site acquisition projects. Some background concerning how wireless systems are designed and the types of components that make up wireless infrastructure help portray the texture of wireless facilities. Finally, the search area design translates to an assignment for site acquisition activities to commence.

#### 4 PART ONE

Section II focuses on what the site acquisition consultant does with an assignment once it is received. Initially, the information contained with a search area assignment is reviewed and analyzed. Existing structures are considered. The search area is mapped to isolate existing structures and favorable zoning and to determine property ownership. Environmental factors are considered. The zone-ability, constructability, and lease-ability of potential locations are evaluated. Conversations and negotiations with property owners of qualified locations complete the site search due diligence process. Next, the most desirable options will be documented.

Section III completes the first half of the story. The search area report is a compilation of feasibility data that allows pertinent members of the project team to decide which location to develop. Upon site selection, an in-depth report of due diligence information collected for the chosen property is compiled by the site acquisition consultant for distribution to the project team. At this point the first half of the story and the introduction to wireless site acquisition is complete.

## Part Two

## Wireless Site Development

The opening section of Part Two addresses the process of initiating project development activities leading toward the procurement of the real estate entitlements needed to prepare a location for construction or implementation of wireless facility infrastructure. Interim work is necessary to secure initial rights to survey the property, conduct due diligence regarding the property's title or ownership status, develop drawings, and account for environmental considerations. To facilitate the project team's due diligence efforts, the site acquisition consultant coordinates a group visitation to the selected development location with the property owner.

Section V is exclusively devoted to space agreements that need to be negotiated to secure real estate entitlement space and occupancy rights from the property or existing structure owner. I will talk about preliminary property rights, considerations for leasing property, collocation agreements, and standard wireless industry leasing provisions. Often, additional agreements, waivers, and other documents

are drafted and signed by parties related in some way to the property owner's interest in the property. These additional documents help to secure the wireless site developer's desired interest in the property and quality real estate entitlements. I will briefly discuss the choice to purchase property instead of leasing it. Finally, some attention to closing and documenting the leasing process finishes this section.

Section VI explores the procurement of local permit rights necessary for construction and facility operation. These rights are land-use or zoning permission and building permits. I will discuss making applications, planning staff and building department review of applications, and governing bodies involved in granting final permit approvals. Part of the permitting process involves public hearings. Our discussion includes topics typically the subject of local inquiry about wireless facilities along with providing support resources and strategies for responding to inquiries.

Section VII, "Real Estate Entitlement Completion," is a wrap up elaborating three perspectives: a project management point of view, the importance of close-out documentation, and the types of inquiries that may follow completion of the site acquisition and permitting phase of a wireless infrastructure project.