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MissionCriticalPartners



EXPERT ADVICE TO GUIDE YOUR FACILITY PROJECT

Volume 1 Mission-Critical Facility Planning and Design

Mission Critical Partners Presents

EXPERT ADVICE TO GUIDE YOUR FACILITY PROJECT

Volume 1: Mission-Critical Facility Planning and Design



MissionCriticalPartners

missioncriticalpartners.com

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DEDICATION

For everyone in public safety who works so diligently to protect lives and property, especially first responders who risk their lives every day to keep America safer.

“Because the Mission Matters”

TABLE OF CONTENTS

Foreword	9
Introduction	10
Section 1—Process	13
Chapter 1: Concept.....	15
Chapter 2: Design Team	19
Chapter 3: Program Management	25
Chapter 4: Programming.....	27
Chapter 5: Fiscal	31
Chapter 6: Schematic Design	35
Chapter 7: Design Development	39
Chapter 8: Construction Documents/Bid Specifications	43
Chapter 9: Construction	45
Chapter 10: Migration.....	47
Chapter 11: Mission-Critical Facility Commissioning.....	49
Chapter 12: Public Safety Systems Commissioning.....	51
Chapter 13: Decommissioning	53
Section 2—Space	55
Chapter 14: Site Selection.....	57
Chapter 15: Facility Size.....	61

Chapter 16: Critical Space	65
Chapter 17: Non-Critical Space	67
Chapter 18: Physical Security	73
Chapter 19: Adjacencies	77
Section 3—Systems	79
Chapter 20: Building	81
Chapter 21: Technology	87
Chapter 22: Furniture, Furnishings and Equipment.....	95
Appendix A—Key Standards Documents.....	97
Appendix B—Key Industry Resources.....	99
Appendix C—Helpful Tips.....	101
About Mission Critical Partners.....	103

FOREWORD

This book was written to help government leaders responsible for public safety projects better prepare for building, expanding or renovating a mission-critical emergency communications/emergency operations facility. The goal is to create a facility that can meet the needs of a community in a steady state, as well as during events that require full utilization of everything the facility has to offer.

This book doesn't provide a specific "blueprint," because the needs of each community are unique, as are the management priorities and policies of each agency. This makes developing a one-size fits all, multipurpose blueprint for creating a mission-critical facility all but impossible. Rather, we intend the content to serve as a guide that allows for the unique characteristics of each agency to be incorporated into a flexible outcome.

However, in this book we demystify an otherwise time-consuming and complicated process. This will make it easier for its readers to present such projects to their communities. More importantly, it will prepare the reader for the complex planning and design process. The end result will be a mission-critical facility that will serve the community—and the first responders who protect them—for decades to come.



INTRODUCTION

Mission Critical Partners (MCP) helps government officials make the best possible decisions when it comes to funding and creating public safety projects, including new building design or the renovation of an older structure.

MCP was formed in 2009, but its founders have worked together for more than 20 years. The MCP team is one of the largest and most knowledgeable teams of specialized public safety professionals in the industry, and in most cases their individual career paths started with a role in the public sector. As a result, we have a unique understanding of how complicated it can be to get projects involving emergency services started and then to see them through to completion. Our firm brings the experience and perspective necessary to focus on your agency's desired outcome to make these types projects successful, from beginning to end.

The MCP team has learned the hard lessons about what works, and what doesn't, when it comes to mission-critical facility design, construction and implementation. The goal of every project is to ensure that the outcome provides a solution that enhances, rather than hinders, operational capabilities. The firm was founded to share this vital information with clients. We believe in doing good work in work that's good to do—because the mission matters.

A project to build or refurbish an emergency communications center—including 911 centers—or an emergency operations center is no small undertaking. Generally speaking, the decisions made will impact the agency and its stakeholders for at least 20 years, perhaps a half century or more. The building must meet today's operational and technology requirements while being flexible enough to accommodate the unforeseen practices and systems deployed in the future. The complexity of such a project is daunting. Any single decision impacts many other aspects of the facility and the desired operational outcome—just as a pebble tossed into a lake creates ripples that are many times larger than the pebble. Therefore, a great deal of thought needs to be put into sizing, purposing and equipping the facility.

GUIDANCE BASED ON EXPERIENCE

The basis of this book is to offer guidance to those who are spearheading such projects. Everyone at MCP understands that a failure to meet budgets and the expectations of taxpayers can be a career-limiting event. We're here to manage the risk so that essential program elements are achieved, by helping project leaders mitigate the constraints and challenges that could have a detrimental impact on the effort to bring the facility to fruition.

MCP exists to share valuable lessons learned regarding the development of mission-critical facilities. Most of these lessons come from years of hands-on experience. This book is an extension of the sharing that we've been doing, with the goal of helping our clients make excellent decisions for building, remodeling or expanding their mission-critical facilities.

Because each of the firm's founders—and many of its consultants—have personal experience as project leaders in the public sector, MCP understands how overwhelming all of the information involved in these projects can be, and how exasperated planners can feel when they hear conflicting information from multiple sources. This can easily lead to frustration and an overall feeling that not everything is being done in the most effective manner.

These complex projects are best executed through streamlining and clarifying every step of the often lengthy process, which encompasses facility design, construction, technology integration and the smooth transition of emergency operations and staff to new facilities.

PLANNING IS EVERYTHING

This book focuses specifically on mission-critical facilities that must survive any natural or manmade event that impacts or jeopardizes life or public safety. It's imperative that planners thoroughly consider the impact of significant events that could affect these facilities and their systems, so that any design flaws become apparent prior to a situation occurring where they will be fully stressed.

Each and every decision impacts the outcome as it relates to capital expenditures, technology deployment, operations and maintenance and future budgets. Due to the complexity of these facilities, this is not an easy mission to accomplish. Though each agency has unique requirements, the right planning effort will help with setting expectations and clarifying many of the issues involved in the process, including cost expectations, spatial allocation, technology procurement and deployment, survivability and sustainability.

Because every location encounters different threats and must adhere to different codes and requirements, we can't possibly provide specific individualized guidance in this book. Instead, we present many of the choices we are confident that the reader will face, as well as many of the strategies and tactics that have worked best for us over the years.

It's our hope that officials who lead public safety facility projects will share this information with others, including stakeholders and the general public, to help us make the entire process less mystifying. With information comes knowledge, and with knowledge comes success.

It is now time to examine the details of putting a facility plan and design project together—from start to finish.



SECTION 1

PROCESS



SECTION 2

SPACE



SECTION 3

SYSTEMS



MissionCriticalPartners

Mission Critical Partners (MCP) is a professional and lifecycle management services firm that helps clients enhance and evolve their mission-critical operations. Since 2009, the firm has played a leading role in helping design more than fifty emergency operations centers and public safety answering points across the United States. Our expertise provides clients with confidence and support throughout every stage of facility design or renovation process from design and procurement to building and management. The result is a high-performing, forward-looking public safety facility that achieves maximize value and optimal efficiency.

We stand behind the importance and nobility of the work our clients do. We understand the criticality of effective and efficient public safety systems, not just for our clients, but their entire community. At the end of the day, our success is based on the success of their clients and their mission-critical operations... Because the Mission Matters.

FAST FACTS ABOUT MCP

- We've been named an *Engineering News-Record* Top 20 Telecommunications firm for five consecutive years.
- More than 200 public safety agencies have turned to us for more than 600 mission-critical projects.
- We've served more than half of the nation's largest metropolitan areas.
- Our efforts create an average cost-savings for clients upwards of 15 percent.
- We provide expertise that across the entire public safety communications ecosystem from radio to broadband, networks and 911, and facilities and operations.

Please visit www.missioncriticalpartners.com for more information.

THE SECRETS OF PUBLIC SAFETY COMMUNICATIONS FACILITY DESIGN FROM THE MOST EXPERIENCED IN THE INDUSTRY

A project to build or refurbish an emergency communications center is no small undertaking. The decisions that are made will impact the agency and its community for at least 20 years, perhaps a half century or more. Every single decision that's made along the process touches almost every aspect of the facility and its operations. Therefore, a great deal of thought needs to be placed into sizing, purposing and equipping the facility.

This book offers guidance to those who are spearheading these types of projects and breaks down nearly every step that will be encountered along the way—providing you with best practices and considerations that will minimize risk and simplify the complexity of the process.



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