CONSTRUCTION SITE PLANNING AND LOGISTICAL OPERATIONS
Site-Focused Management for Builders
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Impact fees are the costs associated with public utilities and the impact that the project will have on the local services provided by the municipality. These fees can include support for sanitary sewer expansion, electrical services expansion, water services, fire and emergency services, road improvements, public school construction, and so forth. Visit www.impactfees.com to start accessing information on local impact fees broken down by state, county, and city location.
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PREFACE

This book is written to help construction professionals improve on-site management of building projects. It should be valuable for aspiring and current superintendents and for upper-tier construction management or construction engineering baccalaureate students who expect to serve professionally on building construction jobsites.

The editors became convinced that this book is needed, as none currently written seems to cover the subject quite as they wished to teach it in the Building Construction Management courses they teach at Purdue University. Perhaps the book closest to it is the locally published Construction Site Planning written by our colleague, Dr. Fredrick “Fritz” Muehlhausen, who taught thousands of students about jobsite logistics in his course of that name. One can find multiple books that cover many of the subjects, but no one book captured enough of what we believe to be essential for good site operational and logistical management. None quite pulled together the predominant topics that we have found must be known to enhance the performance of field professionals.

The content draws from both the technical and the managerial realms. Jobsite supervision often demands integration of many competing concerns in order to plan and direct operations that simultaneously satisfy requirements imposed for schedule, budget, quality, and safety. The book is structured to first provide much of the focused technical knowledge, which informs the jobsite leadership, management, and control processes. All authors are seasoned practitioners and educators, and well versed in what they hope to convey. The book includes some international perspectives provided by James O’Connor of Dublin Institute of Technology. Of course, many of the fundamental planning and supervisory concepts apply globally. The reader might note minimally more repetition of some concepts in this book than in others, but the chapters must stand alone reasonably well in order to be individually available.

If the book proves as helpful to field professionals and students as we hope it will, then there are many supervisors, colleagues, clients, and students who share in whatever credit the book merits. Their generous guidance, insights, demands, and questions over the decades have added much that our observations alone would not have offered. We thank Professor Wayne Reynolds, PE, lately the construction management degree program director at Eastern Kentucky University, and Dr. Michael Emmer, associate professor in the construction management degree program at Roger Williams University, for their valuable assessment of the manuscript. Any errors remain the responsibility of the editors and authors.

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Many construction veterans say that a successful superintendent is like the conductor of an orchestra:

- Musicians = workers.
- Instruments = tools and equipment.
- Paper music = plans and schedule.
- Resulting music = the completed building.

Each day, the superintendent is planning the work (writing the music) and executing the plan. Without the superintendent, the workers are left to interpret the music without direction. They can make it for a short period of time but will often fall out of time without the superintendent there to keep them together.

While this entire book will explore the processes and skills required to be a great superintendent, this section will examine the preplanning that goes into a successful project from the site perspective. A great builder once said, “You make money in the office; you keep from losing it in the field.” While this quote is often unpopular with superintendents, it does bring up a good point. The profitability on a construction project is typically targeted early on, during the bid or negotiations. While all the authors of this book strongly advocate the involvement of the field staff during the bid process, we recognize that this is often unrealistic. Most teams are left with the task of planning after the job has been awarded. Either way, the more preplanning a superintendent does, the more efficient the project will run.

Section I will highlight traditional basics required of planning a project coupled with new technologies that now aid a faster and more accurate plan. The foundation will be set with a look at a typical project site in perspective, including today’s economic pressures. Preparing and recognizing for the unknowns will be reviewed in chapter 2—Due Diligence. Lastly, the book will utilize some of the most recent software systems and how they can save the superintendent time and money during the initial project planning.