How to Plan and Manage Your Capital Projects

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WHO WE ARE – A BRIEF INTRODUCTION

Jim is the longest tenured Pizzuti associate and brings a combination of both public and private experience to his role. He has nearly a decade of experience in city management and economic development and provides strategic input through the planning, programming, and development of all phases of projects. Jim provides clients with a special emphasis on creative financing, municipal funding strategies and potential partnerships. He has worked on the development of numerous sports and recreation facilities including fieldhouses, community centers and tournament facilities with clients including local government and professional sports teams.

Brian has been a dedicated member of the New Albany Parks and Recreation team since 2011. He holds a B.A. in Sports & Leisure Studies and a Master's in Sport Management, both from The Ohio State University. During his time at Ohio State, he demonstrated exceptional leadership, serving as Vice President of the Sport Management Association and earning prestigious accolades such as the Andy Geiger Leadership Award and the Ted Coates Academic Scholarship. In New Albany, Brian has spearheaded award-winning initiatives, including the Michael Lucey Memorial Basketball Complex and the Buckets 4 Behren Charity Event. His leadership extends to active roles on multiple Ohio Parks and Recreation Association (OPRA) Committees, including Conference Partnership Chair and Region 4 Networking Chair.

Ashley brings to Pizzuti more than a decade of experience in the public sector working at both the federal and local government levels. As Senior Project Manager, Ashley partners with clients to develop strategies and programing for new projects. She manages the entire development cycle, and coordinates with the project team to achieve the best outcomes for clients and stakeholders. At Pizzuti, she has contributed to a diverse portfolio of projects including the Bob Crane Community Center in Upper Arlington, Ohio; the Fran Ryan Creative Center, in Columbus, Ohio and the Delaware County Social Services Administration Building in Delaware, Ohio.

WHAT WE WILL BE REVIEWING

- The Ins and Outs of a Capital Improvement Plan
- Options for managing large or complex projects
- An introduction to the design, construction and operation of a new facility
- Strategies to manage a new project without disrupting your current work responsibilities

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What is a Capital Improvement Plan?

A CIP has two parts – the capital budget and the capital program.

- The ***capital budget*** is the upcoming year's spending plan for capital items.
- The ***capital program*** is a plan for capital expenditures that extends typically five to ten years beyond the capital budget.

Because the CIP bridges the gap between the planning process and the budget process, it is important to understand some of the key benefits to maintaining and updating your Capital Improvement Plan.

What is a Capital Improvement Plan?

A Capital Improvement Plan (CIP) is your blueprint for meeting the goals and objectives of your community and/or organization that includes financial planning and financing strategies for implementation.

The CIP should include all individual capital projects, including equipment purchases, building renovations or additions, long-term maintenance requirements, and/or the planning and construction of new facilities or other public improvements.

In essence, the CIP is the intersection of strategic planning, financial capacity, and physical development.

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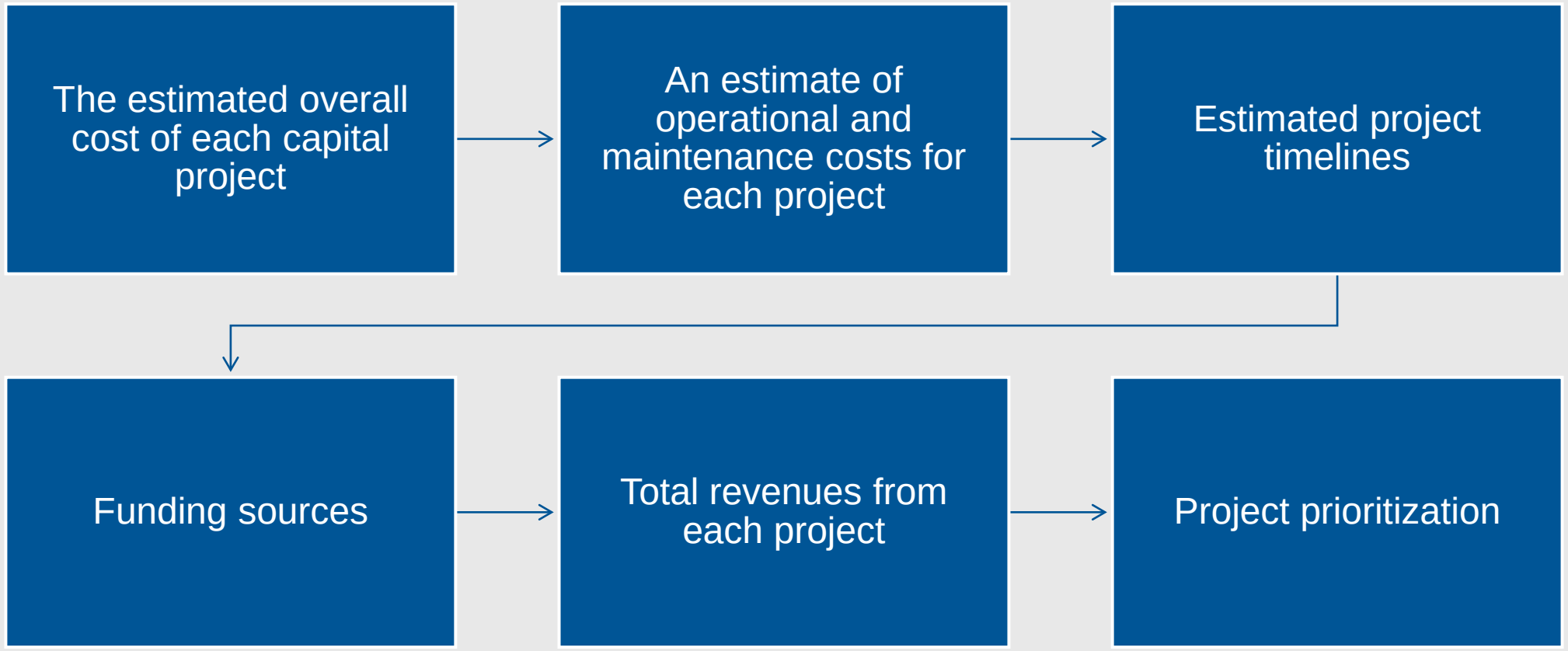
WHY DO A CAPITAL IMPROVEMEMENT PLAN?

- The capital plan helps a community (or department) anticipate needs rather than just reacting to problems in the moment.
- Capital planning provides time for leaders to get the necessary resources in place gradually, as opposed to all at once.
- A capital plan provides the proper preparation necessary to determine the most economical means of financing a project.
- When prepared collectively, the CIP helps increase “buy-in” among officials and employees and helps voters (if necessary) understand its importance.
- The capital plan can also put the community in position to quickly take advantage of federal or state grant programs and other financing opportunities.

WHAT BELONGS IN YOUR CIP?



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WHAT BELONGS IN YOUR CIP?

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- Strategic Alignment:
  - Clearly define your organization's long-term goals and objectives.
  - Ensure proposed capital projects directly contribute to achieving these strategic goals.

- Needs Assessment:
  - Evaluate the current state of your assets, identifying potential replacements or upgrades needed.
  - Analyze the remaining useful life of existing equipment and infrastructure.
  - Consider potential future needs based on market trends and business growth.

- Project Prioritization:
  - Assess the potential return on investment (ROI) for each project.
  - Prioritize projects based on their impact on achieving strategic goals and addressing critical needs.
  - Consider risk factors associated with each project.

- Financial Analysis**:**
  - Estimate the initial cost of each project, including installation, maintenance, and operational expenses.
  - Determine potential funding sources, including internal funds, debt financing, or grants.
  - Calculate the projected cash flows and payback period for each project.

WHAT BELONGS IN YOUR CIP?

…continued

- Data and Technology:
  - Utilize data analytics to identify trends and inform decision-making.
  - Implement technology to track project progress, manage budgets, and facilitate communication.
- Continuous Improvement:
  - Regularly monitor project performance and adjust as needed.
  - Review and update the CIP based on new information and changing priorities.
- Transparency and Accountability:
  - Clearly communicate the Capital Investment Plan to relevant stakeholders.
  - Establish performance metrics to evaluate the success of capital projects.
- Important Considerations:
  - Regulatory Compliance**:** Ensure all projects adhere to relevant regulations and environmental standards.
  - Sustainability**:** Integrate sustainability considerations into project planning.
  - Stakeholder Engagement**:** Involve key stakeholders in the planning process to gain valuable input.

WHAT BELONGS IN YOUR CIP?

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In summary, a capital improvement plan (CIP) includes:

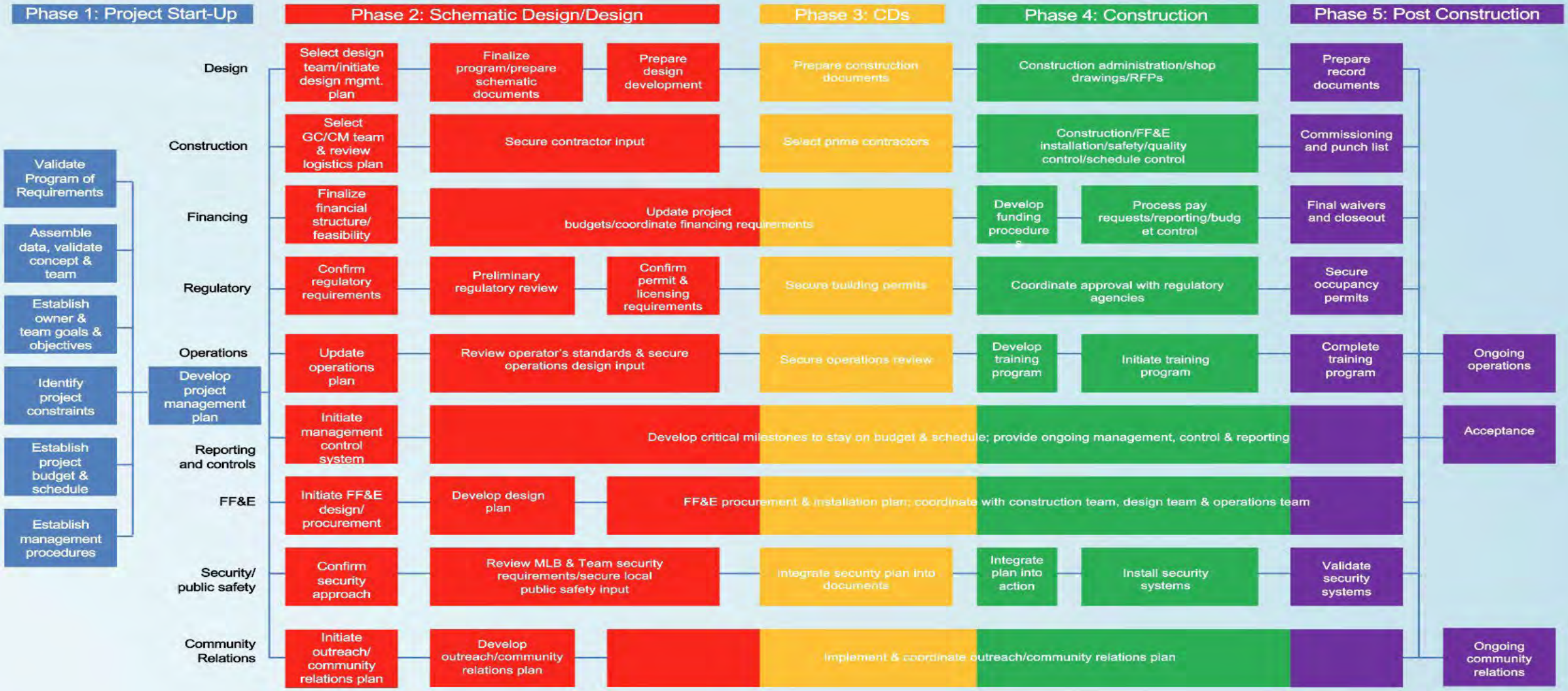
- Supportive reasoning – how the projects meet your stated goals and objectives
- Your estimated overall cost of each capital project
- The estimated operational and maintenance costs for each project
- Project timelines and anticipated durations
- Funding sources
- Potential revenue generated by your projects
- Project prioritization

Questions ?

Capital Improvement Plans and Programs

PLANNING AND MANAGEMENT APPROACH

Facility Development



MANAGING YOUR PROJECT

Management Responsibilities

Project Manager

A project manager identifies the project's goals, objectives and scope and creates a project plan that outlines the tasks, timelines, and resources required. They communicate with the project team and stakeholders, manage risks and issues, and monitor progress to ensure that the project stays on track.

Design Manager

The selected design firm will assign an internal design architect and project manager to your project. Their responsibility will be to prepare a work plan that outlines their schedule to complete final programming, and to advance the design process through completion of final plans and specifications.

MANAGING YOUR PROJECT

Management Responsibilities

Construction Manager

Construction managers plan, coordinate, budget, and supervise construction projects from development to completion. At a high level, a construction manager does the following: Plans the entire construction project with timelines and milestones; hires and manages subcontractors and staff.

Property or Facility Manager

The property or facility managers' responsibilities include setting and collecting rent (or memberships), handling maintenance requests, filling schedules and programs, and potentially in setting the budget for ongoing and long-term maintenance and replacement of furniture, fixtures and systems.

MANAGING THE PROJECT

Internal Resources or Third-Party Help?

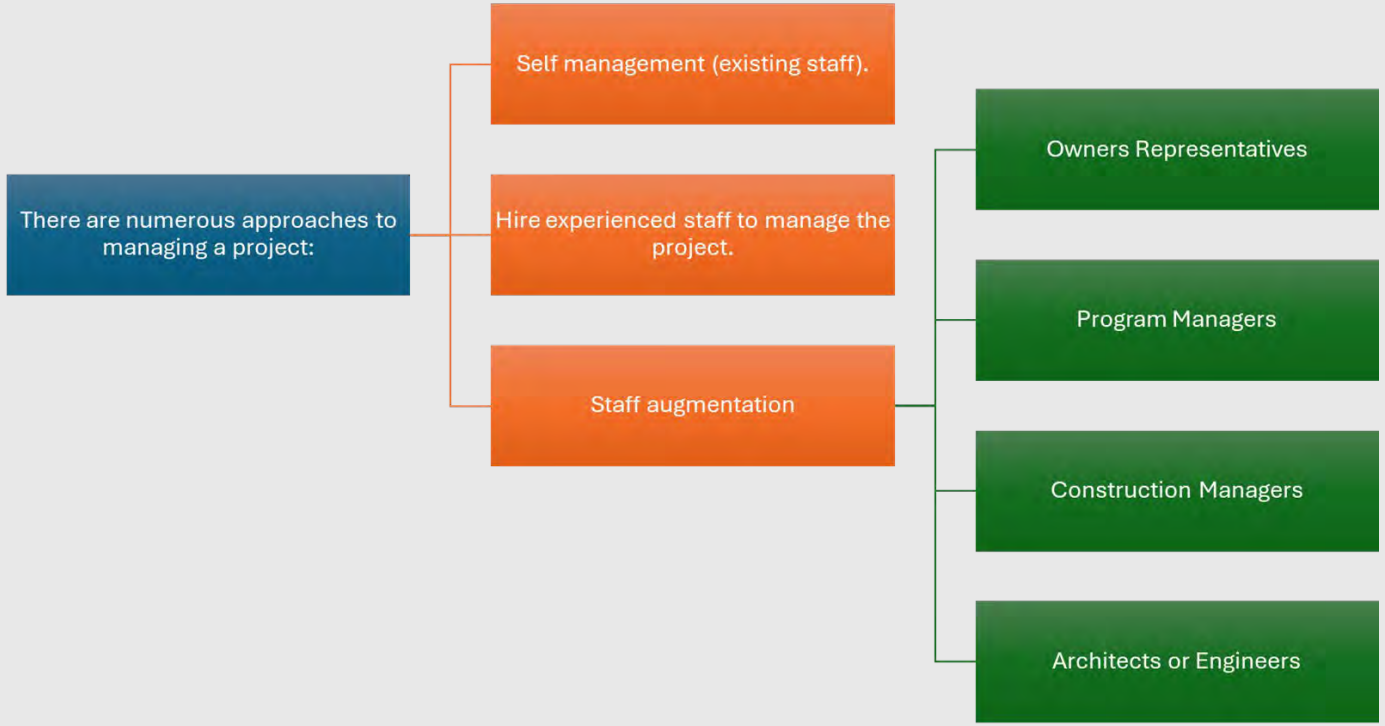
- Do you have the time?
- Do you have the experience?
- Who is going to pick up your current workload?
- Who will be held accountable?
- What level of risk are you willing to take on?
- Where do you get help?

MANAGING THE PROJECT

Internal Resources or Third-Party Help

There are numerous approaches to managing the overall project:

1. Self management (existing staff)
2. Hire experienced staff to manage the project
3. Staff augmentation
    a. Owner's Representatives
    b. Program Managers
    c. Constructors as Managers
    d. Architects or Engineers as Managers



STAFF AUGMENTATION

Who Do We Engage?

There are generally four groups that can provide staff augmentation for your projects. Each offer similar project management services but are unique in their approach and skill sets. These four groups include:

a. Owner's Representatives
b. Program Managers
c. Construction Managers
d. Architects or Engineers

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STAFF AUGMENTATION

…continued

An **Owner's Representative** essentially functions as a project manager on behalf of the project owner, overseeing all aspects of the design and construction project to ensure it aligns with the owner's vision, budget, and schedule, acting as their advocate throughout the process by making decisions and managing risks with the owner's best interests in mind; essentially, they manage the project from the owner's perspective. This includes project planning, design oversight, contractor selection, contract negotiations, budget management, schedule monitoring, quality control, risk assessment, and project closeout. The OR requires a deep understanding of both the design and construction processes, and possesses project management expertise, strong communication skills, negotiation abilities, and the ability to make informed decisions on behalf of the owner.

Key points to remember:

- While a standard project manager might focus on managing tasks within a specific discipline, an Owner's Representative takes a holistic view of the entire project, prioritizing the owner's needs above all else.

STAFF AUGMENTATION

…continued

A ***Program Manager*** can be considered as a "project manager of project managers," meaning they oversee multiple projects simultaneously, aligning them with broader strategic goals, while a project manager focuses on the execution of a single, defined project with specific deliverables and timelines; essentially, program managers take a more strategic view, managing the big picture across various projects within a program, while project managers handle the tactical details of each individual project.

Key points to remember:

- A program manager manages a group of related projects, whereas a project manager manages one project at a time.
- Program managers concentrate on aligning projects with organizational goals and ensuring overall program success, while project managers focus on delivering project deliverables on time and within budget.
- Program managers are more strategically involved, aligning projects with overall business goals, while project managers are more tactical, ensuring individual project success.

STAFF AUGMENTATION

…continued

A ***Constructor*** can essentially act as a "project manager" on smaller construction projects, overseeing the entire project from start to finish, but in larger projects their focus is primarily on managing the on-site construction activities, reporting progress and issues to a more comprehensive "project manager" who handles the broader project scope, including budgeting, client communication, and pre-construction planning; essentially, a construction manager is a specialized project manager focused specifically on the construction phase.

Key points to remember:

- A construction manager is focused on the completion of the project and heavily involved in the day-to-day operations on the construction site, ensuring work is completed according to plans and schedules, while a project manager has a wider scope, managing all aspects of the project from conception to completion. Early programming and operational considerations are not typically a skill set of former contractors.

STAFF AUGMENTATION

…continued

An ***Architect*** acting as a "project manager" means they take on a leadership role within a building project, overseeing the entire design and construction process from start to finish, ensuring it is completed on time, within budget, and to the required quality standards, while coordinating with clients, contractors, and other stakeholders involved.

Responsibilities include**:**

- Managing project schedules, budgets, resource allocation, communication between team members, identifying potential risks, and adjusting as needed to ensure the project runs smoothly.

Key points to remember:

- An architect may not have broad construction experience in the day-to-day impacts to construction-related items, such as cost of materials, labor, sequencing, lead-time challenges, etc.

Questions ?

Managing Your Projects

QUICK REVIEW OF DESIGN PROCESS

While the selected design firm will assign an internal design architect and project manager to your project, the owner has decisions that need to be made to keep the project team moving forward. There are four basic phases to the design of your project:

- Owner's Program of Requirements (OPR)
- Schematic Design (SD)
- Design Development (DD)
- Construction Documents (CD)

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QUICK REVIEW OF DESIGN PROCESS

The Owner's Program of Requirements (OPR)

The OPR is developed as part of the project planning process and establishes the baseline criteria for facility function, performance, operations, and maintenance.

The Basis of Design (BOD) is developed by the architect/engineer (A/E) early in the design stage based on the OPR. It is the primary document that translates the owner's wants and needs into building components such as heating ventilating and air conditioning (HVAC) systems, building envelope, security systems, building automation system, etc.

The BOD also describes the technical approach planned for the project, as well as the design parameters to be used.

QUICK REVIEW OF DESIGN PROCESS

Conceptual Design (Concept)

The Concept (or outline design) is the architect’s initial approach to establish the design intent of the project, and begin to explore a buildings’ form and bulk, scale and mass, and exterior appearance of a building within its surrounding context.

Concept design implies an idea, or range of ideas, a development approach, a guiding concept, and a design intent. It resolves the issue of 'what' and 'how much' and begins to set the stage for understanding 'how'. Concept design explores the resolution of the brief, implied or set out in the feasibility and assessment stage. The conceptual approach includes the site orientation of the project as well.

QUICK REVIEW OF DESIGN PROCESS

Schematic Design (SD)

The SD is an initial design scheme that seeks to define the general scope and conceptual design of the project, including scale and relationships between building components. At the end of the schematic design phase the architect will present conceptual sketches to the owner for approval.

The concept design is the architect's initial approach to establish the design intent of the project, and begin to explore a buildings' form and bulk, scale and mass, and exterior appearance of a building within its surrounding context.

These sketches will provide the owner with the opportunity to verify that the architect has correctly interpreted the client's desired functional relationships between various activities. The sketches will also provide the client with a general indication of what the exterior design will look like.

QUICK REVIEW OF DESIGN PROCESS

Design Development (DD)

The DD is the next stage of design where the schematic design decisions are worked out in greater detail. A clear and coordinated description of all aspects of the design, including architectural, mechanical, plumbing, electrical and fire protection systems, are worked out.

At this phase, the constructor typically assists the owner and architect in determining potential cost savings, energy efficiency, and constructability improvements.

At the end of the design development phase the architect will provide the client with drafted to-scale drawings that will illustrate the project as it would look when it is constructed. These drawings will very specifically define the site plan, floor plans, and exterior elevations.

QUICK REVIEW OF DESIGN PROCESS

Construction Documents (CD)

The CDs are the documents that set forth the detailed requirements for the construction of a building project. Some people refer to these as bid documents since they include Drawings and Specifications.

Drawings are the illustrative component of construction documents, whereas **Specifications** are written requirements pertaining to building materials, equipment, and construction systems that outline the standards to be met in the construction of a project.

When the construction drawings are complete the client will have sufficient information to submit the drawings for approval and permitting, as well as to solicit contractor/subcontractor bids to complete the work.

QUICK REVIEW OF CONSTRUCTION PROCESS

There are numerous ways to construct a project, and benefits and challenges with each. Your project will most likely be built utilizing one of the following delivery methods:

- General Contractor (GC)
- Construction Manager (CM) or Construction Manager Agency (CMA)
- Construction Manager at Risk (CMaR)

QUICK REVIEW OF CONSTRUCTION PROCESS

General Contractor

The **General Contractor** is usually an individual or company that manages the day-to-day activities at the jobsite. They are the lead entity in charge of building the building. They have their own employees who serve as project managers or foremen, with laborers who self-perform on projects or utilize a variety of specialty subcontractors. Generally, in large commercial projects, various subcontractors complete 80-90% of the work. The general contractor serves as the project manager coordinating the work of the subcontractors and serving as the liaison in communicating with the owner or architect on project activities.

If you are advancing a public-private partnership to advance your project, pay attention to any detail related to construction that may be triggered by public dollars for your project. This could include public procurement, paying prevailing wage rates and/or potential to execute a Community Benefits Agreement or Project Labor Agreement.

QUICK REVIEW OF CONSTRUCTION PROCESS

Construction Manager

The **Construction Manager** is a more collaborative partner with the owner of projects. There is usually not competitive bid pricing in the selection of a construction manager, but rather their selection is generally based on qualifications and experience, versus lowest price. Construction managers are typically paid on fee-based pricing (flat, per hour, or percentage of project costs) and the ongoing costs associated with general conditions and staffing. The CM does not hold the individual trade contracts and manages the bidding, schedules, construction coordination and trade sequencing and safety on behalf of the owner.

QUICK REVIEW OF CONSTRUCTION PROCESS

Construction Manager-at-Risk

The **Construction Manager-at-Risk** (CMaR) approach is a delivery method which entails a commitment by the construction manager (CM) to deliver the project within a Guaranteed Maximum Price (GMP). The CMaR provides professional services and acts as a consultant to the owner in the design development and construction phases.

The CMaR may also provide some of the actual construction of the project depending on the availability of bidders and company expertise although they must provide competitive bid pricing for consideration. In addition to acting in the owner's interest, the CMaR must manage and control construction costs to not exceed the GMP because contractually any costs exceeding the GMP that are not change orders are the financial liability of the CMaR.

Questions ?

Design and Construction

IMPORTANT CONSIDERATIONS

Managing a new project without disrupting from current responsibilities, requires a focused approach on the project set-up an structure. Keep in mind, however, that regardless of your best efforts – there will be schedule impacts on either (or both) current responsibilities and the new project. Planning for these impacts and recognizing where they could occur, will help to minimize stress for the project manager and team.

Key strategies to help organize and manage multiple projects (and/or responsibilities) include:

Prioritize and Plan:

- Identify critical tasks: Clearly distinguish urgent tasks on existing projects from the new project's initial priorities.
- Schedule dedicated time: Allocate specific time slots within team members' schedules to focus on the new project without neglecting current work.
- Create a detailed project plan: Thoroughly outline the new project's scope, deliverables, timeline, and resource requirements.

IMPORTANT CONSIDERATIONS

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Resource Allocation:

- Dedicated team: If possible, assemble a separate team specifically for the new project to avoid pulling resources away from current projects.
- Resource management: Carefully manage resource allocation, identifying potential bottlenecks and adjusting as needed.
- Delegate tasks effectively: Assign tasks to individuals based on their availability and expertise to avoid overburdening team members.

Communication and Transparency:

- Regular updates: Keep all stakeholders informed about the new project's progress and potential impacts on current projects.
- Open communication channels: Foster open dialogue between teams involved in both new and existing projects to address concerns and potential conflicts.
- Stakeholder engagement: Regularly engage with key stakeholders to manage expectations and address any issues early on.

IMPORTANT CONSIDERATIONS

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Scope Management:

- Clear boundaries: Define a clear scope for the new project, ensuring that it does not unnecessarily overlap with existing projects.
- Change management process: Establish a process to manage any scope changes on the new project and minimize their impact on ongoing work.

Monitoring and Adjustments:

- Progress tracking: Regularly monitor the progress of both the new and existing projects to identify any potential issues or resource conflicts.
- Adaptive approach: Be prepared to adjust plans and resource allocation as needed to mitigate any negative impacts on current projects.

IMPORTANT CONSIDERATIONS

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Project Complexity:

- The level of effort required to manage a new project without disrupting current work will also depend on the size and complexity of both projects.
- Know your red flags and watch for them. Make sure you know what they are and what to watch for before it is too late to adjust. Document any obstacles along the way for next time.
- Be proactive enough to sense when things are getting off track and adjust accordingly, instead of reacting afterward.

IMPORTANT CONSIDERATIONS

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Team Capacity:

- Assess the team's current workload before taking on a new project to avoid overcommitting resources. Familiarize yourself with your team's weaknesses so you can optimize performance by leveraging outside resources or proactive management. If you need more players on the field, go recruit more, but be strategic about it.

Project Management Tools:

- Utilize project management software to effectively visualize project timelines, resource allocation, and potential conflicts.

Questions ?

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