

Innovative approaches Practical results Outstanding service

# **CONSTRUCTION MANAGEMENT DIVISION**

# PROJECT MANAGEMENT FRAMEWORK & ORGANIZATIONAL REVIEW

Prepared for:

**City of Fayetteville** 

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### 1.0 EXECUTIVE SUMMARY

In an effort to enhance the efficiency and effectiveness of its Construction Management Division (CMD or Division), the City of Fayetteville (City) enlisted the expertise of Freese & Nichols, Inc. (FNI). The goal was to conduct a thorough review of the Division's current practices, organizational structure, funding mechanisms, and reporting processes, and to provide actionable recommendations for improvement.

The CMD, established in 2019, initially focused on the successful completion of Segra Stadium, home to the Fayetteville Woodpeckers. Over the years, the division has grown to manage a wide array of projects, including parks, public safety, and various city facilities. Despite its critical role, the division faces several challenges, including staff shortages and an informal and passive approach to project management. Currently, the CMD oversees more than 15 projects with a combined value exceeding \$150 million, but it operates with only three Project and Contract Managers (one position is vacant), an Administrative Manager, and a vacant Director position.

FNI's review highlighted the need for a more proactive project management approach. The existing framework relies heavily on external designers and contractors, with significant involvement from the City Manager's Office in decision-making. To address these issues, FNI proposes a comprehensive project management framework that clearly defines roles, responsibilities, desired outcomes, processes, tools, templates, standards, and reporting mechanisms.

Key recommendations include shifting to a proactive project management style, where Project Managers (PMs) take ownership of their projects from start to finish. This involves developing solicitation materials, managing contract routing, reviewing pay applications, and processing change orders more efficiently. Additionally, FNI emphasizes the importance of increased transparency through formal reporting mechanisms and design-phase cost controls to ensure projects remain within budget.

To support these changes, FNI suggests several adjustments to the division's structure and funding. We recommended reassessing the funding model to bring clarity to personnel costs in project budgets and elevating the director position to attract experienced candidates. Furthermore, increasing project management capacity by adding staff or leveraging consultants is deemed essential to handle the growing project portfolio.

Looking ahead, FNI proposes the implementation of a comprehensive Project Management Information System (PMIS) to centralize project management processes and provide real-time insights into project performance. We also suggest creating a Project Controls Specialist position to oversee the PMIS and support PMs across the organization.

### 2.0 BACKGROUND & SCOPE

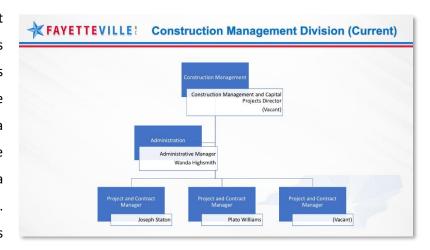
The City of Fayetteville contracted with Freese & Nichols, Inc to review the effectiveness of the City's Construction Management Division and recommend improvements to the processes, policies, and tools in use today to manage projects. In addition, FNI reviewed the organizational structure, including the way in which the department is currently funded, as well as the Division's approach to reporting project status information to senior management and others within the City organization.

An FNI staff member was embedded with CMD staff in-person and virtually for approximately three months, from November 2024 through February 2025 in order to learn first-hand how the Division operates and interacts, both internally and with stakeholders throughout the City organization connected to the overall project delivery process.

FNI's full scope for these services is included as **Appendix A**.

### 3.0 CONSTRUCTION MANAGEMENT DIVISION OVERVIEW

The Construction Management
Division was created in 2019 as
a way to centralize and focus
resources towards the
successful completion of Segra
Stadium, home to the
Fayetteville Woodpeckers, a
minor league baseball team.
Since then, the Division has



evolved to assume a centralized role in the delivery of capital facility projects for client departments throughout the City organization.

Today, the Division is responsible for managing most of the City's parks, public safety, and facilities construction projects. Responsibilities of the Division include initial cost estimation, design- and construction-phase project management, reporting of project data, financial/budget management, and coordination with client departments. The Division has five authorized positions – three Project and Contract Managers (PMs) (one currently vacant), an Administrative Manager, and a Director (currently vacant). The two PMs on staff have varying experience and are not licensed architects or engineers. The Division's current project portfolio includes more than 15 active projects that are in planning, design, or construction, which total more than \$150 million.

The Division is currently funded from capital project budgets, using a formula to calculate salaries and other overhead costs associated with project management. It is unclear whether these overhead costs are factored into overall project budgets at the time of CIP development.

### 4.0 EXISTING PROJECT MANAGEMENT FRAMEWORK

The Division operates as a centralized Project Management Office in that they are responsible for coordinating the delivery of projects for client departments – the ultimate end-users of the facilities the Division constructs. The Division's current approach to project management is relatively passive, relying on designers and contractors to drive project budgets and schedules, and internal service providers (Purchasing, Finance, etc) to drive processes related to procurement of services (RFQs, Bids), issuing Notices to Proceed, and processing pay applications. Authority for decision making is maintained at a high level within the organization rather than in the Division, with significant CMO involvement in project design and execution.

The following Responsibility Assignment Matrix demonstrates the concentrated nature of responsibility throughout the general project lifecycle within the City of Fayetteville organization:

				N			C	onstruction	Managem	ent Division
FATELLE	YETTEVILLE									atrix - Existing
										02/10/25
R => Responsible - Owns the task, leads the effort, and responsible for co	mpleting the v	work								
A => Accountable - Is accountable for tasks, deliverables, and assignment	s delegated to	others who are	Responsible.							
C => Consulted - Has important information or knowledge to be leverage	d when comple	eting a task or a	ctivity.							
I => Informed - Notified of progress and results.										
S => Supportive - Provides support and may perform sub tasks.										
Activity	CMD	Client Depts	СМО	CAO	Purchasing	Finance	Budget	Facilities	City Council	
CIP Development										
Departmental CIP need identified		R	А					(S)	С	
Initial project development										
- Project Charter development										
- Stakeholder Register development										
- Building Program development	S	R								
- Scope development	s	R								
- Cost Estimate development	R	S								
Review CIP request for completeness	s	А					R			
CIP Requests presented to CMO		А					R			
CMO selection of projects to include in CIP		С	R						С	
Project Initiation										
Project funding budgeted						R	С			
Project Plan development										
Initial project budget/schedule development	R	С	С							
Project documentation development (Risk Register, Communications Matrix, Project-specific RACI)										
Schedule & conduct project kickoff meeting	R	С	1	ı	1			1		

Design Solicitation & Award										
Develop RFQ(s)	С	С	С	С	R					
Advertise solicitation(s)	ı	ı	ı		R					
Conduct Pre-proposal meeting	s	S	ı		R					
Receive Statements of Qualification			·		R					
Develop Selection Committee and selection/scoring criteria	S	S			R					
Review/Score SoQs	С	С		С	R					
Convene/Lead scoring meeting	s	s	s	ı	R					
Compile scores					R					
Negotiate designer contract	R		s	С	С					
Prepare award recommendation for City Council	S		С		R	S			С	
Design Management										
Execute designer contract	s	s	А	С	R	С	С			
Issue NTP to designer	С				R		-			
Coordinate/conduct design kickoff meeting	R	s	s		ı					
Hold design charette / programming exercise	R	S	-							
Monitor design scope/schedule/budget	R	С	1							
Monitor OPCC/Constuction Cost Estimates	R	С								
Approve design progression at 30/60/90% milestones		-								
Coordinate permitting	R	С								
Review/approve Construction Documents	R	С		С	С					
Bid & Award			,			,			,	
Develop bid package for advertisement	S	s		С	R					
Advertise for bid					R					
Conduct pre-bid meeting	S	S	I	1	R					
Conduct bid opening	S				R					
Review bids for responsiveness	S				R					
Confirm validity of surety			А	С	R					
Negotiate outstanding items/contract	R			С	С					
Prepare recommendation of award for City Council	S	ı	С			R			С	
Construction	,			,						,
Execute construction contract	S	S	Α	С	R	С	С			
Schedule pre-construction meeting	R	S	ı		С					
Schedule groundbreaking ceremony	s	R	С							
Monitor scope/schedule/budget	R	1	ı							
Inspect work for conformance with Construction Documents	R									
Review/Process periodic Pay Applications	С		ı	(C)	R					
Review/Process Change Order requests	S	С	С	S	R	С				
Monitor contingency use	R	_								
Coordinate trade inspections/approvals	R	ı								
Develop punch list	R	S						S		
Issue Notice of Substantial/Final Completion	R									
Coordinate commissioning/technology transfer/training	R	S						С		
Close Out & Warranty										
Create/Process Final Amending Change Order	R	ı	С		С	С				
Track warranty items	R	С						С		
Coordinate w/ contract for resolution of warranty items	R	С						С		
Schedule/conduct final warranty walkthrough	R	С						С		
Continuous										

### 5.0 ELEMENTS OF AN EFFECTIVE PROJECT MANAGEMENT FRAMEWORK

An effective project management framework should clearly articulate the following elements for each phase of a project's lifecycle:

Roles/Responsibilities (The Who) – This element describes who is ultimately responsible for the development and success of the phase's deliverables and who is responsible for contributing to their development. While several departments may contribute to the development of the deliverables within a phase, a single department/position should be vested with ultimate responsibility for its creation and/or success.

This is the element where the expectations of executive management should be most clearly embedded, as it serves as standing direction to the project management organization regarding how its members should work together. It is most effectively communicated via a Responsibility Assignment Matrix (RAM), described in more detail later in the report.

**Desired Outcomes** (The Goals) – This element clearly states the deliverables of the phase and their purpose/importance to the overall success of the project.

**Processes** (The How) – This element provides intra- and inter-departmental processes that must be followed in the development of phase deliverables. It is important to note that processes should not be seen as optional guidance materials, rather, they should be seen as the established policy by which tasks must be accomplished. Deviation from an established process should require formal approval requiring sound, articulable justification.

**Tools/Templates** (The Help) – This element directs the owners and contributors to the tools and templates available to assist them in their coordination and/or the development of the phase deliverables.

**Standards** (The Rules) – This element lists the organizational, jurisdictional, and industry standards governing the project design.

**Reporting** (The Transparency) – This element describes the information to be reported to keep stakeholders updated on the work within the phase and/or to communicate the results of the completed work.

The Division's projects can generally be thought of as following this lifecycle:

- 1. **CIP Development** Projects are identified by client departments, executive leadership, or City Council direction. Future funding is identified and programmed in the City's CIP.
- 2. **Project Initiation** Funding is budgeted in the current year, the project is assigned to a project manager, and the project is kicked off.
- 3. **Design Solicitation & Award** An RFQ is released to procure design services, statements of qualification are received and reviewed, and an award recommendation is made to the City Council for approval.
- 4. **Design Management** The consulting engineer/architect designs the project in close collaboration with the CMD project manager and project stakeholders. Cost controls are implemented to ensure that the design remains within budget with appropriate contingency. Permits are received and construction documents are developed.
- 5. **Construction Bid & Award** The City solicits bids in accordance with state law, reviews for conformity with construction documents and responsiveness, and recommends award to City Council for approval.
- 6. **Construction Management** The contractor is issued a notice to proceed and constructs the project in conformance with the construction documents. Oversight is provided by the designer and CMD PM. The City may contract for Construction Administration (CA) and/or Resident Project Representative (RPR) services. The contractor submits periodic pay applications which are reviewed and approved by the CMD PM. A punch list is developed and resolved. Upon final completion, the project is issued a Certificate of Occupancy (CO) and the warranty period begins.
- 7. **Close Out & Warranty** Project accounts are closed and any warranty issues that arise are addressed by the contractor.

In addition to these specific phases, there are some project elements that are **continuous**. Examples include consistent reporting of project schedule, budget, risk, and other performance metrics, as well as general PM oversight.

### 6.0 RECOMMENDED PROCESS IMPROVEMENTS

Several process improvements are recommended to better align the project management approach with industry best practice. Implementation of some of these items may have a longer lead time than others or may rely on building or hiring additional skill or experience within the Division to fully implement.

1. **Proactive Project Management** – Project managers should own their projects during all phases and, in doing so, should be the primary drivers of and advocates for their projects' success. The following are examples of specific areas where increased proactivity and ownership on the part of the PM could provide additional efficiency in the delivery of projects:

	Current	Recommended					
Designer Solicitation Process	Driven by Purchasing, which develops the RFQ, manages the scoring process, compiles results, and interacts with selected consultant to negotiate scope.	The PM should develop solicitation materials with input from the Purchasing Department, and should manage the SoQ review, scoring, and notification process. Scope negotiations should be led by the PM with input from Purchasing and other stakeholders.					
Contract Routing Process	Not centrally driven; contracts make their way through the routing process without a shepherd unless high priority ("walked through").	The PM should, at all times, know the status and location of contracts in the routing process and should proactively advocate for approval.					
Pay Application Review	The PM signs off on Pay Applications only to signify that the work indicated as having been completed was actually completed by the contractor (earned value) during the pay period. Purchasing then reviews Pay Applications to determine whether proper backup is provided, whether line items are over budget, whether subcontractors have been changed out, etc. After their review, Purchasing sends to Finance for processing.	The CMD PM should be responsible for reviewing the entirety of Pay Applications for conformance with the contract documents. This includes both earned value and sufficiency of backup documentation, budget line status, subcontractors, etc. In short, it should be the PM's responsibility to certify that the Pay Application is complete, correct, and ready for processing by Finance.					
Change Orders	PMs work informally with contractors in developing Change Orders, sometimes holding them to the point that project expenditures exceed the authorized contract amount. This is done to wait to determine if project residuals exist which might cover the cost change within the existing contract, thereby negating the need for a formal Change Order.	Change Orders should be viewed as necessary documentation of changes to the contract terms (time and money) and should be proactively processed to provide budget or schedule adjustment ahead of their being needed in order to process a Pay Application. If the cost can be absorbed by the current budget, this can be shown during contract reconciliation and closeout.					

		In cases where it is known ahead of time that the overall contract value will remain unchanged, a formal "Cost Change Event" or similar device should be used to formally document even minor changes within the contract between the City and the Contractor.
Milestone Design Reviews	Upon reaching contractual design review milestones, the City's design consultants distribute plans directly to various City departments to solicit comments. This approach creates multiple points of contact between the City and the architect, potentially leading to conflicting feedback on designs.	The CMD PM should be the City's singular point of contact for the designer outside of design-specific meetings or charettes between the CMD PM, client department, and designer. When design milestones are reached, the designer should send the plans only to the CMD PM, who should then distribute plans for review to stakeholders, receive comments on the plans from stakeholders, and compile those comments for transmittal back to the designer. In cases where conflicting comments are received, the CMD PM should resolve the conflicts prior to finalizing the compiled City comments for transmittal to the designer.

- 2. Increased Consultant Expectations The City relies on its design consultants to drive much of the project management activity. This includes development of project schedules and budgets, as well as coordination among City staff. While this is an acceptable approach, the City should ensure that its consultants provide clear scopes that describe deliverables along with the effort required to achieve them. In addition, for those items that consultants agree to within their scopes, the City should ensure that they are delivered in a timely manner. Examples include meeting minutes or the scheduling of periodic project update meetings.
- 3. **Increased Transparency** The Division currently reports project status updates via a bi-weekly interdepartmental meeting, using a Word document updated by the PMs as the basis for discussion. Budgets and schedules are reported informally.

The City should consider implementing a more formal reporting mechanism that operates in real-time to provide insight into budget and schedule baselines versus actual, financial status, anticipated challenges, and project progress. This dashboard could be made available to City staff, City Council, and others to allow for transparency in project status. This is discussed further in Section 9.0.

- 4. **Design-Phase Cost Controls** To ensure that projects remain in budget as they proceed through the design process, a series of checks should be put into place at standard design milestones where the project scope and budget are reconciled prior to proceeding. Most often, these reconciliations are conducted at the transition between the Schematic Design (SD), Design Development (DD), and Construction Documents (CD) phases of design. Through the designer or a third-party cost estimator, the City should compare the updated Opinion of Probable Construction Cost (OPCC) at each stage with the project budget to determine whether changes to the design need to be made to reduce cost prior to proceeding to the next phase of design. Contingency should be considered a non-negotiable reserve within the project budget at each phase, unavailable to cover costs included in the design.
- 5. **PM-Centered Responsibility and Authority; Clarity in Responsibilities** PMs should be vested with the responsibility and the authority to own and manage the projects for which they are responsible. This may require additional resources, as described later, to ensure that PMs have the capacity and skill to proficiently manage an appropriate workload. Most importantly, the organization's expectations of the CMD PMs should be clearly documented and communicated, and performance should be measured against these expectations.

Additionally, to formalize relationships between departments and workgroups, including client departments and internal service providers (Purchasing, etc), the City could choose to implement **Service Level Agreements** to establish written and agreed upon standards by which these parties interact. SLAs can provide a level of predictability to interdepartmental relationships and expectations that contribute to successful and efficient project delivery. A template SLA is provided in **Appendix B**.

The following Responsibility Assignment Matrix demonstrates a revised division of responsibility that the City of Fayetteville could consider implementing to realign oversight of various aspects of the project management process:



**Construction Management Division** 

Departmental Responsibility Matrix - Recommended

02/10/25

R => Responsible - Owns the task, leads the effort, and responsible for completing the work

A => Accountable - Is accountable for tasks, deliverables, and assignments delegated to others who are Responsible.

C => Consulted - Has important information or knowledge to be leveraged when completing a task or activity.

I => Informed - Notified of progress and results.

S => Supportive - Provides support and may perform sub tasks.

Activity	CMD	Client Depts	смо	CAO	Purchasing	Finance	Budget	Facilities	City Council	
CIP Development					•		•			
Departmental CIP need identified		R	А					С	С	
nitial project development									-	
- Project Charter development	R	С	1					С		
- Stakeholder Register development	R	С	С							
- Building Program development	R	С	ı					С		
- Scope development	R	С	1							
- Cost Estimate development	R	S						С		
Review CIP request for completeness	S	А					R			
CIP Requests presented to CMO	s	А					R			
CMO selection of projects to include in CIP		С	R						С	
Project Initiation										
Project funding budgeted		ı				R	с			
Project Plan development	R	С	1			ı		S		
nitial project budget/schedule development	R	С	1			1		3		
Project documentation development (Risk Register, Communications Matrix, Project-specific RACI)	R	S						1		
Schedule & conduct project kickoff meeting	R	C		,	1			<u> </u>		
Design Solicitation & Award	K	, c	'	'	·			'		
Develop RFQ(s)	R	С	С	С	С					
dvertise solicitation(s)	ı	ı	ı		R					
Conduct Pre-proposal meeting	R	S	- 1		S					
leceive Statements of Qualification					R					
Develop Selection Committee and selection/scoring criteria	R	S			S					
Review/Score SoQs	R	С		С	С					
Convene/Lead scoring meeting	R	S	1	ı	S					
Compile scores	R									
Negotiate designer contract	R		- 1	С	С					
Prepare award recommendation for City Council	R		С		S	S			С	
Design Management								<u> </u>		
xecute designer contract	s	s	А	С	R	С	С			
ssue NTP to designer	R	-			S	-	-			
Coordinate/conduct design kickoff meeting	R	s	1		ı					
Hold design charette / programming exercise	R	s								
Monitor design scope/schedule/budget	R	ı	1							
Monitor OPCC/Constuction Cost Estimates	R	С								
Approve design progression at 30/60/90% milestones	R	ı								
Coordinate permitting	R	s								
Review/approve Construction Documents	R	ı		С	S					
3id & Award										
Develop bid package for advertisement	R	s		С	s					
dvertise for bid					R					
Conduct pre-bid meeting	R	s	ı		s					
Conduct bid opening	s				R					
Review bids for responsiveness	s				R					
Confirm validity of surety			А	С	R					
Negotiate outstanding items/contract	R			С	С					
				<u> </u>	+ <u> </u>			-		<b>!</b>

Construction									
Execute construction contract	S	S	А	С	R	С	С		
Schedule pre-construction meeting	R	S	- 1		S				
Schedule groundbreaking ceremony	S	R	С						
Monitor scope/schedule/budget	R	1	-						
Inspect work for conformance with Construction Documents	R								
Review/Process periodic Pay Applications	R		1	(C)	ı				
Review/Process Change Order requests	R	С	С	S	S	С			
Monitor contingency use	R	- 1							
Coordinate trade inspections/approvals	R	I							
Develop punch list	R	S						S	
Issue Notice of Substantial/Final Completion	R								
Coordinate commissioning/technology transfer/training	R	S						С	
Close Out & Warranty									
Create/Process Final Amending Change Order	R	1	С		С	С			
Track warranty items	R	С						С	
Coordinate w/ contract for resolution of warranty items	R	С						С	
Schedule/conduct final warranty walkthrough	R	С						С	
Continuous									
Report on project scope/schedule/budget	R	ı	1	ı	ı			1	

The above RAM is provided in **Appendix C** in a side-by-side comparison with the existing matrix to more clearly demonstrate recommended shifts in responsibility.

### 7.0 RECOMMENDED DIVISION ADJUSTMENTS

### 7.1 FUNDING

The CMD is currently completely funded through a charge back to project accounts. While this is appropriate, it is not clear that current capital project budgets were assumed to include these soft costs at the time that they were budgeted. Available project funding is thus being reduced below the actual amount required to design and construct some facilities to fund the Division.

In addition, this approach does not recognize that a portion of any PM's time is spent on overhead tasks. That is, tasks that are not directly related to the management of any particular project. These overhead tasks include things like paid time off, organizational (non-project) meetings, performance reviews, etc.

Given the above, the City could choose to revert for a time to funding the operations of the CMD via the General Fund in order to allow for future CIP project budgets to sufficiently incorporate funding. This would relieve pressure on current project budgets while providing a time-certain (e.g. year three of the CIP) upon which all agree that project budgets will be expanded to cover these soft costs. Further, rather than the percentage-based calculations that are being used today, the City could adopt a more straightforward approach of assuming some consistent split between project-related time and overhead time – 50/50 or 60/40 project/overhead – and then spread that project-related cost proportionally over the total of all projects funded in that particular year.

### 7.2 ORGANIZATION

Strong, technically sound, leadership is critical to the success of the City's Construction Management Division. The City should consider elevating the director position to the extent possible and conducting a targeted recruitment campaign to attract a high-quality, professional candidate with the experience to re-shape the Division into an efficient and effective project management office. While the Division director may be a skilled project manager, the City should consider refraining from expecting the director to manage projects directly. Leading the Division should be seen as a full-time endeavor – attending meetings, communicating on behalf of the Division, addressing acute project issues, managing interdepartmental coordination issues, strategic planning, etc. In doing so, the director will free individual PMs up to focus on the successful management of their projects.

In addition, as opportunities arise through retirement or attrition, the City should aim to recruit PMs who have demonstrated proficiency and expertise in project management. Preference should be given to registered professional engineers or architects and to those with Project Management Institute certifications (PMP).

Finally, given the current and anticipated size of the City's capital portfolio, it is critical that the City add additional project management capacity. This could be accomplished in the short term by leveraging consultants to act as City project managers. In the longer term, the City should consider adding a minimum of two project management positions within the Division in order to reduce the individual portfolio size of each PM to a manageable level.

### 8.0 REVISED PROJECT MANAGEMENT FRAMEWORK

A proposed project management framework is included as **Appendix D**. It represents an approach to documenting the CMD's project management approach that is consistent with the information presented in Section 4.0 above. It can be a centralized source of information related to each phase of a project's life and is meant to be a living document that the Division can continue to supplement with new information, standards, and expectations as time goes on and the organization becomes more sophisticated.

### 9.0 TOOLS/TEMPLATES

A series of templates have been created for use by Division PMs on all projects and are included in **Appendix E**. The intent of these documents is two-fold: 1) to capture critical project information for use throughout the project lifecycle, and 2) to facilitate more formality in the development and implementation of projects.

The templates provided are as follows:

**Project Charter** – The purpose of this document is to capture relevant high-level project information at the beginning of a project and to ensure that all stakeholders have clarity in the goals, scope, budget, and schedule. Care should be taken to ensure that sufficient detail is provided on background and scope, and that noted goals are specific, measurable, and achievable. The Project Charter should be completed as early as possible in the project lifecycle, preferably at the time of conception during CIP planning.

**Project Plan** – This document takes the Project Charter a step further in terms of granularity. It is meant to capture the details of the project, including deliverables, stakeholders, organization, risk, communications, quality control, and others. The Project Plan should be completed upon project initiation.

**Responsibility Assignment Matrix (RAM)** – As demonstrated elsewhere in this memo, the RAM Matrix is a succinct way to document responsibility for tasks and deliverables. While its use above captures departmental responsibility for tasks within the general project management framework, its use at the project level allows for clear delineation of project-specific tasks to the position/staff level.

**Risk Register** – The Risk Register provides an objective system for documenting, classifying, and dealing with known or discovered project risks. It allows for the designation of a Risk Management Team – those responsible for tracking, identifying, and mitigating risks, led by the project manager – and for the assessment of risks on the basis of cost and schedule impacts as well as the probability of occurrence of those risks at the operational and life-cycle levels.

**Stakeholder Analysis** – This matrix allows for the documentation and assessment of all those who may have an interest in a project. It documents each individual's level of interest and level of influence, as well as any strategies that might be used by the City to support or mitigate their impact on the project.

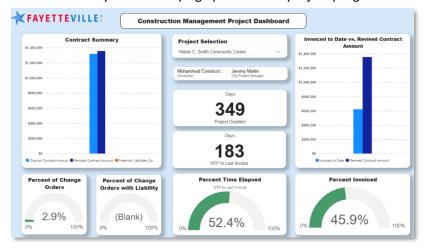
**Vocabulary** – While not included as a deliverable within this report, as a recommendation, the City should consider the creation of a project management glossary to establish a consistent vocabulary of project management terms. This vocabulary, when used consistently across the organization, will ensure that project-related communications are understood as they are intended and will lead to increased clarity among City staff involved in the project management process. In particular, the terms "RFP", "RFQ", and "Bid" are often used interchangeably across the organization though they have different meanings.

### 10.0 REPORTING

Transparency is critical in the successful management of a large project portfolio. Project information should be easily accessible to stakeholders, kept up to date, and be reported in a way that allows issues to be quickly and easily recognized and managed.

FNI is developing a revised project dashboard for the City's use in staying up to date on project progress.

It provides both a graphical look at schedule and budget progress and a more detailed look at current budget and forecast changes. At the time of this writing, the dashboard is still in development and will be presented to the City in draft form at a later date.



### 11.0 FUTURE CONSIDERATIONS

Many of the recommendations in this report are intended to be immediate- or short-term adjustments needed to stabilize and formalize project delivery. As the City's capital portfolio continues to grow, so too must its capacity to deliver projects effectively. Over the longer term, the City should consider additional resources related to reporting and project management within and outside of the Construction Management Division.

### 11.1 REPORTING AND PROJECT CONTROLS

Consideration should be given to the implementation of a comprehensive Project Management Information System (PMIS) to serve as a centralized mechanism to drive project management processes, house project-related documents, and provide insight into project manager performance. Many PMIS implementations provide a great deal of insight into project data, often with the ability to slice data differently to provide helpful dashboards to a variety of audiences (PMs, executive leadership, external stakeholders, etc). They also act to implement formal processes and workflows.

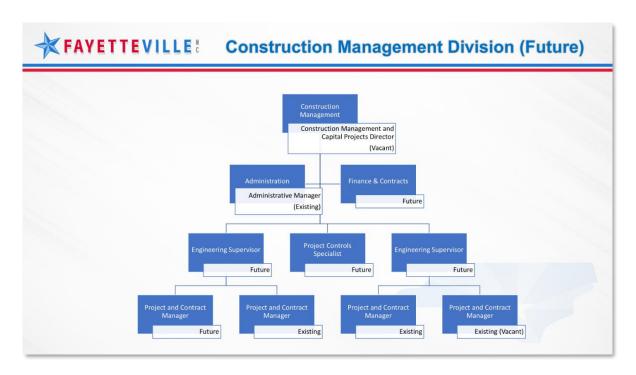
Given the level of effort required to implement and maintain a PMIS, including ongoing development and oversight of workflows, the City should consider creating a "Project Controls Specialist" or similarly-titled position to focus on the successful implementation and management of the PMIS. This position could be housed within CMD or in another department but should have authority to direct project managers in the use of the PMIS and to provide assistance to project managers throughout the

organization in implementing effective project management practices. In essence, this position would be a technical resource for PMs throughout the organization, outside of their formal reporting relationships, to provide guidance and direction on managing projects.

The City currently uses Oracle in other areas (Finance, etc) and has researched the implementation of Oracle PPM as a PMIS solution, though this system was found to not meet the organization's needs. There is currently an effort underway to schedule a demonstration of Trimble Construct (formerly eBuilder) by the Purchasing Department.

### 11.2 DIVISION/ORGANIZATION GROWTH

As noted earlier, the Construction Management Division is currently under-resourced. Once appropriately staffed in an interim capacity, the City should consider expanding the Division as the capital portfolio expands through the implementation of an additional level of technical supervision. One approach is as follows:



### 12.0 ACKNOWLEDGEMENTS

The research and recommendations contained in this report would not have been possible without the time and talents of the many staff members in the City of Fayetteville organization. City Manager Doug Hewett and ACM Adam Lindsay were very generous with their time in informing the content of this report and providing the direction and vision needed to align these recommendations with the organization's values. Additional staff members that made themselves available for interviews included Purchasing Manager Kimberly Toon, ACM and Interim CFO Jeff Yates, Budget Director Kimberly Leonard, City Attorney Lachelle Pulliam, Fire Chief Kevin Dove, Facilities Manager Tim Johnson, and IT Director Willie Johnson.

Finally, FNI wishes to thank the current staff of the Construction Management Division: Project Managers Joseph Staton and Plato Williams, and Administrative Manager Wanda Highsmith. Without their openness and assistance, FNI would not have gained the insight needed to develop this report.

### **APPENDIX A**

**FNI Scope of Services** 

### SCOPE OF SERVICES AND RESPONSIBILITIES OF CITY

### PROJECT UNDERSTANDING

The City of Fayetteville's Construction Management Division (CMD), within the City Manager's Office, is responsible for the centralized delivery of vertical construction projects for the organization. Due to the recent departure of the division director, the City has requested that FNI provide interim management of the division in order to keep projects moving forward and stabilize the transition to new leadership. In addition, the City has requested that FNI inventory and review project management and reporting processes and recommend improvements based on the expectations and priorities of executive leadership.

### ARTICLE I

**BASIC SERVICES:** FNI shall render the following professional services in connection with the above project understanding:

A. **Staff Augmentation** - Provide staff with experience in municipal engineering program management to oversee the CMD for up to eighteen (18) hours per week for a period of eight (8) weeks, with the following goals:

# Weeks 1 - 4 – Assume 2 days in-office per week plus virtual support

- Personnel
  - Hold 1:1 and group meetings with CMD staff to understand their:
    - o positions and self-perceived responsibilities and levels of authority
    - o individual and team morale and sense of connection to the organization
    - o individual personalities and their strengths and weaknesses
    - o group dynamics
  - Establish rapport with CMD staff in order to provide a smooth transition from existing leadership and to provide oversight and guidance
  - Meet with internal stakeholders outside of CMD to understand the organization's perception of the division
  - Meet with internal customers to ascertain needs and whether those needs are being met

### **Projects**

- Hold meetings with CMD staff and review available information to evaluate current project portfolio, project status, and current challenges
- Review current project reporting criteria and methods to develop an understanding of how and to whom project information is communicated
- Meet with executive leadership to define expectations related to project management and reporting
- Work with staff to ensure that projects are on track to meet budget and schedule goals, and that those goals are achievable

### **Processes**

- Through the above meetings and reviews, develop an understanding of existing PM processes, their formality, and their effectiveness
- Meet with organizational stakeholders outside of the CMD to understand interdepartmental processes affecting CMD project delivery

### Weeks 4 - 8 - Assume 2 days in-office per week plus virtual support

### Personnel

- Continue to meet with CMD staff to provide leadership, oversight, and guidance
- Develop recommendations on organizational structure, staffing level, and level of service

### **Projects**

- Collaborate closely with CMD staff to remain abreast of current project portfolio, project drivers and status, and current challenges
- Communicate project information to leadership to ensure awareness and visibility into schedule and budget status

### **Processes**

- Develop revised division project management processes
- Coordinate with organizational stakeholders to implement interdepartmental processes as authorized by leadership
- B. **Additional Deliverable Development** While providing services outlined in Section A above, FNI will develop the following deliverables utilizing additional staff for assistance as needed:
  - a. Draft recommendation on CMD structure, staffing, and level of service
  - b. Optimized project status communication tools
  - c. Customized:
    - i. Project Charter
    - ii. Project Plan
    - iii. Stakeholder Register
    - iv. Risk Register
    - v. Communication Matrix
    - vi. Responsibility Matrix
  - d. Other work product deriving from the services outlined in Section A that FNI and Fayetteville leadership believe to be necessary for the continuing success of the CMD and the City.

### C. Assumptions

a. In addition to two days per week in-office at City of Fayetteville offices, scope/budget assumes up to two (2) additional hours of virtual support to attend meetings or respond to correspondence/questions remotely per week

### **ARTICLE II**

**SPECIAL SERVICES:** FNI shall render the following professional services, which are not included in the Basic Services described above, in connection with the development of the Project: N/A

### ARTICLE III

**ADDITIONAL SERVICES:** Any services performed by FNI that are not included in the Basic Services or Special Services described above are Additional Services. Additional Services to be performed by FNI, if authorized by City, are described as follows: N/A

### ARTICLE IV

**TIME OF COMPLETION:** FNI is authorized to commence work on the Project upon execution of this Agreement and agrees to complete the services in sixty (60) days from NTP.

If FNI's services are delayed through no fault of FNI, FNI shall be entitled to adjust contract schedule consistent with the number of days of delay. These delays may include but are not limited to delays in City or regulatory reviews, delays on the flow of information to be provided to FNI, governmental approvals, etc. These delays may result in an adjustment to compensation as outlined on the face of this Agreement and in Attachment CO.

### **ARTICLE V**

**RESPONSIBILITIES OF CITY:** City shall perform the following in a timely manner so as not to delay the services of FNI:

- A. Provide FNI staff workspace collocated with CMD staff, including building access and technology necessary to function as an integrated team member.
- B. Provide FNI staff reasonable access to executive leadership to include regular one-on-one check-in meetings and other meetings as reasonably necessary to ensure alignment with organizational expectations.
- C. Designate in writing a person to act as City's representative with respect to the services to be rendered under this Agreement. Such person shall have contract authority to transmit instructions, receive information, interpret and define City's policies and decisions with respect to FNI's services for the Project.
- D. Provide all criteria and full information as to City's requirements for the Project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations; and furnish copies of all design and construction standards which City will require to be included in the drawings and specifications, as applicable.
- E. Assist FNI by placing at FNI's disposal all available information pertinent to the Project including previous reports and any other data relative to carrying out the Project.
- F. Arrange for access to and make all provisions for FNI to enter upon public and private property as required for FNI to perform services under this Agreement.
- G. Examine all studies, reports, sketches, drawings, specifications, proposals and other documents presented by FNI, obtain advice of an attorney, insurance counselor and other consultants as City deems appropriate for such examination and render in writing decisions pertaining thereto within a reasonable time so as not to delay, or cause rework in, the services of FNI.
- H. Give prompt written notice to FNI whenever City observes or otherwise becomes aware of any development that affects the scope or timing of FNI's services.

- I. Furnish, or direct FNI to provide, Additional Services as stipulated in Attachment SC, Article III of this Agreement or other services as required.
- J. Bear all costs incident to compliance with the requirements of this Article V.

### ARTICLE VI

### **DESIGNATED REPRESENTATIVES**: FNI and City designate the following representatives:

City's Designated Representative – Adam Lindsay

433 Hay Street

Fayetteville, North Carolina 28301

910-433-1990

AdamLindsay@fayettevillenc.gov

FNI's Designated Representative - Blair Hinkle, PE

1017 Main Campus Drive, Suite 1200

Raleigh, North Carolina 27606

919-820-1137

blair.hinkle@freese.com

FNI's Accounting Representative - Stephanie Kirchstein

801 Cherry Street, Suite 2800

Fort Worth, TX 76102

214-217-2212

Stephanie.kirchstein@freese.com

## **APPENDIX B**

**Template Service Level Agreement** 

### **Service Level Agreement**

Capital Project Implementation Support

Effective Date: <Date>

By and between Construction Management Division (CMD) and <CLIENT DEPT>;

By signing below, parties agree to all terms and conditions outlined in this Agreement.

Approvers	Title	Signed	Approval Date
CD an autocapt Hands	Director CMD		
<department head=""></department>	Director, CMD		
<department head=""></department>	Director, <client< td=""><td></td><td></td></client<>		
	DEPT>		

Document Owner: Director, CMD

### **Agreement Overview**

This document represents a Service Level Agreement ("SLA" or "Agreement") between the CMD of the City Manager's Office (CMO) and the <CLIENT DEPT> for the provision of the following services by CMD to <CLIENT DEPT> for selected capital improvement program (CIP) projects in the following areas: 1) project feasibility studies and future budgeting of formally bid CIP projects 2) management of active design and pre-bid phases, including permitting 3) value engineering/scope reduction efforts occurring pre-bid and post bid, 4) inclusion on all correspondence regarding pre-and post-bid project activities/events; 5) preview of agenda items managed by <CLIENT DEPT>, 6) construction administration during construction and the post-construction warranty period, and 7) management of the approved project budget allocation in consultation with <CLIENT DEPT>.

This Agreement remains valid until superseded by a revised agreement mutually endorsed by the stakeholders.

This Agreement outlines the parameters of all services covered as they are mutually understood by the primary stakeholders. This Agreement does not supersede current processes and procedures unless explicitly stated herein.

### **Goals & Objectives**

The purpose of this Agreement is to ensure that City of Fayetteville CIP and major maintenance projects are jointly coordinated and implemented in an effective way to meet the expectations of the Fayetteville community for City Council adopted plans and designs.

Applicable North Carolina state statutes include, but are not limited to, General Statutes (G.S.) Chapter 44A, Statutory Liens and Charges, G.S. Chapter 136, Transportation, and G.S. Chapter 143, State Departments, Institutions, and Commissions.

Applicable City Council adopted plans include but are not limited to <relevant Council-adopted plans/directives> and other pertinent documents.

The goal of this Agreement is to obtain mutual agreement for services provided by CMD to <CLIENT DEPT> and to clearly define expectations and performance metrics.

The objectives of this Agreement are to:

- 1. Present a clear, concise and measurable description of services.
- 2. Provide clear reference to service ownership, accountability, roles and/or responsibilities.
- 3. Articulate expectations for service delivery.
- 4. Identify performance metrics for the evaluation of services rendered.
- 5. <Additional Objectives>

### **Periodic Review & Evaluation Criteria**

This Agreement is valid from the Effective Date outlined herein and is valid until further notice. This Agreement will be reviewed not less than once per fiscal year when the client (<CLIENT DEPT>) will complete an evaluation of the performance metrics outlined herein. At the annual evaluation, both parties will review the terms and conditions of this Agreement to determine if the current service delivery sufficiently and effectively addresses the CIP needs of the client. Modifications to the SLA will be negotiated at that time, which may result in a revised agreement or an extension of the current agreement.

Either <CLIENT DEPT> or CMD may initiate the annual review and evaluation of this document. Contents of this document may be amended as required provided mutual agreement is obtained from the primary stakeholders and communicated to all affected parties. The Document Owner will incorporate all subsequent revisions and obtain mutual agreements/approvals as required.

Review Period: Yearly (12 months)

Previous Review Date: <Date; N/A for initial version>

Next Review Date: <Date>

The evaluation criteria represent tasks to be performed or results to be achieved in the provision of services. These performance metrics are objective measurements that gauge the ability of the service provider to achieve the intended results. The evaluation form is presented in Appendix A.

### **Service Agreement**

The following Services are covered by this Agreement for all mutually identified projects under the City's procurement policies. Annually, the Directors of <CLIENT DEPT> and CMD will review the 5-year capital plans for workload allocation, project management and scheduling:

### Planning and Studies

<CLIENT DEPT> maintains responsibility for all activities related to the planning of facilities including, but not limited to, master planning community engagement, comprehensive plans, programmatic, service and feasibility studies. CMD will engage as requested in order to provide cost estimation services or otherwise advise on matters of cost, constructability and/or appropriateness for supplemental funding opportunities.

### Design, Acquisition, and Pre-Bid

Once a planned <CLIENT DEPT> project is approved and appropriately funded and <CLIENT DEPT> is prepared for the project to move forward, a "project charter" will be developed by the two groups. Generally, items within the project charter may include project scopes, roles, responsibilities, budget, schedule, unique project expectations, points of contact and more. Once the project charter is complete, CMD will assume the lead in procuring design services and moving the project into and through the design phase including through property acquisition, as necessary, and permitting.

<CLIENT DEPT> assumes a stakeholder role in the designer selection process and throughout the design phase. For CMD managed projects, <CLIENT DEPT> will act as consultant to CMD staff in all matters concerning public engagement, public input, and communications related to the project. <CLIENT DEPT> will maintain a presence at all relevant project meetings associated with building programming, uses, aesthetics, form, function, operations, maintenance, public art integration, community alignment and intent in order to provide feedback to the CMD project manager/project team. <CLIENT DEPT> will identify a primary point of contact (POC) for such projects to ensure efficient internal and external communications. At no time shall <CLIENT DEPT> POC direct the work of the consultants.

CMD will, as a part of its normal project development process, conduct budget reconciliation exercises at each design milestone (completion of schematic design (SD), completion of design development (DD), and 90% construction documents (CD)), and at other points as deemed appropriate. At each of these milestones, the design will proceed once 1) the estimated budget for the project is within the available project budget, or 2) <CLIENT DEPT> provides written authorization to move the project forward with the understanding that necessary funding will be transferred to the project at the time of bid award. It is imperative to the success of the design process that project budgets are maintained or adjusted as needed to cover the full cost of project construction, inclusive of applicable contingencies and associated soft costs. <CLIENT DEPT> will engage in design review and will provide written comments to the CMD project manager at each of these milestones through their POC, and design will proceed only with the written concurrence of both <CLIENT DEPT> and CMD, to include the receipt of written comments from <CLIENT DEPT> staff.

It shall be the responsibility of CMD to prepare the project for bidding, including securing approvals and permits from Development Services & other regulatory agencies, finalizing construction documents, identifying bid additive/bid alternates. It shall be the responsibility of <CLIENT DEPT> to confirm adequate funding for the construction phase, highlight any special project features or

conditions, and notify CMD of any mandatory stakeholder participation that may impact the project design or schedule.

CMD will lead and coordinate with <CLIENT DEPT> for funding on the retention of any needed Construction Materials Testing and/ Special Inspections services for projects in order to ensure that adequate scope is met.

### Post-Bid Value Engineering/Scope Reduction

G.S. Chapter143-129(b) permits the governing body to enter negotiations with the lowest responsible bidder in the event that the lowest responsible bids are in excess of the funds available. The statute permits "reasonable changes" in plans and specifications as may be necessary to bring the contract price within the funds available. CMD shall lead all value engineering exercises including providing opinions and negotiating for price and scope reductions.

<CLIENT DEPT> shall be responsible for advising CMD on the appropriateness of value management options and their consistency with the goals of <CLIENT DEPT> and/or the community in the construction of the facility and/or amenities. <CLIENT DEPT> shall ensure that sufficient funds exist within the project budget to cover fees associated with post-bid Value Engineering.

### Correspondence Project Activities/Events

While CMD will assume project management responsibility, <CLIENT DEPT> will be included on all correspondence regarding project activity through their selected POC. This will allow <CLIENT DEPT> to remain informed on any project issues and provide contextual background for any changes in scope or costs during the design and construction phases.

### Agenda Items and Contract Development

CMD will prepare all documents associated with the procurement of design and construction services, to include preparation of all associated agenda items. <CLIENT DEPT> will review all agenda items to ensure full visibility on items coming before the Council and/or public. Where questions arise related to the planning process or <CLIENT DEPT>-led items, <CLIENT DEPT> will take the lead in responding to questions. CMD will lead all responses related to the specific design of facilities that are under development/construction.

### Construction Administration and Project Close-out

CMD will lead the construction and close-out of all projects covered by this SLA, including responsibility for all compliance and reimbursement activities associated with grant-funded projects.

CMD will perform construction administration, including but not limited to: 1) ensuring compliance with contract documents; 2) conducting quality assurance inspections of all work; 3) attending Owner/Architect Conferences (OAC); 4) participating in shop drawing/submittal review process as dictated by the contract documents; 5) processing designer-approved pay applications; 6) monitoring designer and contractor response times as dictated by the contract documents; 7) participating in the contract modification process; 8) budget tracking; 9) monitoring contingency amounts and allowances; 10) ensuring owner representation at milestone inspections (e.g., punch-

list, pre-final, final, special, etc.); and 11) oversight of transfer of close-out documents, record drawings, deed recordation(s), warranties, guaranties, operations and maintenance manuals, and fulfillment of training obligations.

CMD will gain <CLIENT DEPT> approval prior to any of the following changes during construction: 1) schedule and/or completion dates, 2) change orders, 3) design changes (materials, colors, hardware, fixtures, functions, products, etc) that deviate from the bid documents/plans/specs. All responses to inquiries related to the project will be coordinated between CMD and <CLIENT DEPT>.

CMD will manage the construction budget to ensure that the project is completed within the approved budget allocation. At each OAC and/or during review on monthly pay applications, CMD will review project budgets and monitor contingency and retainage amounts. All contract modifications, either by change order or cost event, will be reviewed and approved by CMD with concurrence from <CLIENT DEPT>.

Prior to the expiration of the 12-month contractor warranty period, CMD will schedule the 11-month warranty inspection with the designer and its consultants, contractor, and <CLIENT DEPT>.

### **Client (<CLIENT DEPT>) Requirements**

Client responsibilities and/or requirements in support of this Agreement include:

- Refrain from publicizing, presenting, or otherwise communicating project schedule information publicly prior to coordination between <CLIENT DEPT> and CMD on the information to be presented/conveyed.
- 2. Refrain fully from engaging directly with the City's design consultants or contractors.
- 3. Participate in all design phases including programming and design team meetings. Provide prompt feedback for program development in determining building footprint, function and features.
- 4. Engage in activities necessary to reduce scope if cost estimates exceed the approved budget allocation.
- 5. Pursue additional funding if scope reductions are unsuccessful and building program is determined to be essential for client's ability to deliver programs and services.

### **CMD Requirements**

Service Provider responsibilities and/or requirements in support of this Agreement include:

- Complete all duties outlined herein in accordance with applicable federal, state, and local statutes, policies, procedures, and processes, and accepted industry practices and standards.
- 2. Ensure adequate and appropriate engagement with client throughout project life cycle in accordance with this agreement.

### **Designated Liaisons**

<CLIENT DEPT> and CMD shall designate the following staff as the point of contact for coordination associated with this agreement:

Director, <CLIENT DEPT>
Director, Construction Management Division

However, each project shall have an assigned Project Manager that may not be the designated position referenced above. Project Managers shall be responsible for executing the provisions of this agreement.

### **Review and Modification**

This document shall be reviewed annually and updated as needed and approved by the parties, such approval being indicated by updated signatures on Page 1 of this document.

### **Service Level Agreement**

### **Outline of Departmental Responsibilities**

### <CLIENT DEPT> - CMD

<client dept=""> - CMD</client>											
	<client dept=""></client>	CMD									
	Project Selection and Budgeting										
Project Scoping	Lead	Review and comment									
Budget estimating	Lead	Review and comment									
Project narrative and assumptions	Lead	Review and comment									
Project prioritization	Lead (with Budget Office, CMD, maybe others)	Review and comment									
Final project selection	Lead, CMO and CC	Review and comment									
	Master Planning										
Internal scoping and situation awareness	Lead										
Project scoping	Lead	Invited to participate and stays informed									
Project Dashboard/PMIS Entry	Lead										
Community outreach	Lead										
Community survey	Lead										
Process design recommendation	Lead										
Consultant selection RFQ, Ad, Eval	Lead	RFQ Review and Selection									
Council Award	Lead	Support									
Consultant contract execution	Lead										
Project kick off	Lead	Invited to participate and stays informed									
CPC and public meetings	Lead	Invited to participate and stays informed									
Public workshop	Lead										
Stakeholder groups	Lead										
Community input	Lead										
Staff review	Lead	Review and comment									
Development Services sketch plan	Attend and consult	Lead									
Final draft review	Provide input of scope and cost	Lead									
Third-party cost estimate if needed	Review and comment	Lead									
miru-party cost estimate ii needed		Leau									
	Design and Permitting	CMD									
Duniant assess magnetics builded assumed in	<client dept=""></client>										
Project, scope, narrative, budget assumptions Establish design review team (DRT) and <client< td=""><td>Lead</td><td>Both Depts sign off</td></client<>	Lead	Both Depts sign off									
DEPT> POC	Both Depts sign off	Both Depts sign off									
Establish public art process (if necessary)	Lead	Review and comment									
Director (or Designee) review and approval	Both Depts sign off	Both Depts sign off									
Design consultant selection RFQ	Consult and serve on selection committee	Lead									
Council Award	Review and comment	Lead									
Consultant contract execution		Lead									
Design contract administration		Lead									
Design contract amendments; Obtain City SD Council approval if needed		Load									
		Lead									
SD Payment review and approval		Lead									
SD   MWBE reporting	Lood	Lead Parisus and comment									
Grant contract administration	Lead	Review and comment									
Application, council award and execution	Lead	Review and comment									
Project kick off and scheduling	Review and comment	Lead									
Project Dashboard/PMIS Update		Lead									

	I	1
Other consultant contract execution such as abatement, geotech testing		Lead
Schematic Design (SD)	Review and comment	Lead
SD public participation process	Lead	Support
SD progress coordination meetings	Review and comment	Lead
SD DRT design review	Review and comment	Lead
SD cost estimate	Review and comment	Lead
Development Services sketch plan review	Review and comment	Lead
SD scope and budget reconciliation	Summarize scope and cost change; Sign off SD acknowledgement form.	Summarize scope and cost change; Sign off SD acknowledgement form.
Public Presentation (if applicable)	Lead and present	Support
City Council approval of SD (if applicable)	Lead and present	Support
Design Development (DD)	Review and comment	Lead
Standard project documentation	Review and comment	Lead
DD progress coordination meetings		Lead
DD DRT design review	Review and Comment?	Lead
DD cost estimate	Review and comment	Lead
Third-party cost at DD	Review and comment	Lead
DD scope and budget reconciliation	Summarize scope and cost change; Sign off SD acknowledgement form.	Summarize scope and cost change; Sign off SD acknowledgement form.
Construction Documentation	Review and comment	Lead
Standard project documentation		Lead
CD progress coordination meetings		Lead
CD DRT design review	Review and comment	Lead
CD cost estimate	Review and comment	Lead
CD scope and budget reconciliation	Summarize scope and cost change; Sign off SD acknowledgement form.	Summarize scope and cost change; Sign off SD acknowledgement form.
Final CD	Review and comment	Lead
Front end spec sections	Review and comment	Lead
Permit Application and Review		Lead
Application		Lead
Permit payment coordination		Lead
Bid Documents		Lead
Standard project documentation		Lead
Final bid documents	Review and comment	Lead
	Bidding	
	<client dept=""></client>	CMD
Bidding	Supports	Lead
Bid Advertisement		Lead
Pre-bid Meeting		Lead
Addenda Development		Lead
MWBE Participation Review		Lead
Bid Tab Development		Lead
Value Engineering	Review, comment and sign off	Lead
Consultant Proposal on Testing and Inspection		Lead
Grant contract review		
Review reporting requirements and contract deadline	Lead  Coordinate with grant agent and CMD	Support  Set up project documentation and payment structure accordingly
City Council Award	Review and comment on agenda item. Provide budget information	Lead

Construction contract execution	]	Lead
Project Dashboard/PMIS Update		Lead
Other consultant contract execution, testing, etc.		Lead
Other consultant contract execution, testing, etc.	Construction Administration and Close-out	Leau
City and building against girl, up		Load
Site and building permit pick up	Provide budget support  Communicates with stakeholders and <client< td=""><td>Lead</td></client<>	Lead
Notice to proceed	DEPT> boards	Lead
Construction	Support	Lead
Progress meetings	Attend and support	Lead
Shop drawings and RFI's	Stay informed	Lead
Change orders, administrative directives and change proposals;		
Obtain Council approval when needed.	Review and comment	Lead
Council approval of PME sub change		Lead
Pay applications		Lead
MWBE reporting		Lead
Coordination with trades ouside GC's contract such as utility companies, other City		
departments		Lead
Storm response and site prep		Lead
Design contract administration	Review and comment	Lead
Design contract amendments;		
Obtain City Council approval if needed	Review and comment	Lead
Payment review and approval		Lead
MWBE reporting		Lead
Substantial completion and CO	Support	Lead
Final completion	Support	Lead
Punch list	Review and comment	Lead
As-builts		Lead
Deliver as-builts, O&M and warranty	Receives a copy	Lead
Grant contract reporting	Lead	Provide backup information
Opening and dedication	Lead	Coordination and Sign off
Warranty	Review and comment	Lead
11-month walk through	Review and comment	Lead
Warranty punch list	Review and comment	Lead
Project Closeout	Support	Lead

# APPENDIX C Existing and Recommended Responsibility Assignment Matrix



R => Responsible - Owns the task, leads the effort, and responsible for completing the work

A => Accountable - Is accountable for tasks, deliverables, and assignments delegated to others who are Responsible.

C => Consulted - Has important information or knowledge to be leveraged when completing a task or activity.

I => Informed - Notified of progress and results.

**S => Supportive** - Provides support and may perform sub tasks.

	Exsting Division of Responsibility											R	ecommendo	ed Division of	Responsibil	itv		
Activity	CMD	Client	СМО	CAO	Purchasing	Finance	Budget	Facilities	City	CMD	Client	СМО	CAO	Purchasing	Finance	Budget	Facilities	City
CIP Development		Depts							Council		Depts							Council
Departmental CIP need identified								(0)	_									
Initial project development		R	A					(S)	С		R	A					С	C
- Project Charter development																	-	
- Stakeholder Register development										R	С	I				ı	С	
- Building Program development										R	C	С						
	S	R								R	С	I					С	<del>                                     </del>
- Scope development	S	R								R	С	1						<del>                                     </del>
- Cost Estimate development	R	S								R	S						С	<b></b>
Review CIP request for completeness	S	А					R			S	Α					R		<u> </u>
CIP Requests presented to CMO		А					R			S	А					R		<u> </u>
CMO selection of projects to include in CIP		С	R						С		С	R						С
Project Initiation																		
Project funding budgeted						R	С								R	С		
Project Plan development										R	С	ı			ı	-	S	
Initial project budget/schedule development	R	С	С							R	С	ı						
Project documentation development (Risk Register, Communications Matrix, Project-specific RACI)										R	S	ı					ı	
Schedule & conduct project kickoff meeting	R	С	ı	ı	ı			ı		R	С	ı	1	ı			ı	
Design Solicitation & Award																		
Develop RFQ(s)	С	С	С	С	R					R	С	С	С	С				
Advertise solicitation(s)	ı	I	ı		R					ı	I	ı		R				
Conduct Pre-proposal meeting	S	S	ı		R					R	S	ı		S				
Receive Statements of Qualification					R									R				
Develop Selection Committee and selection/scoring criteria	S	S			R					R	S			S				
Review/Score SoQs	С	С		С	R					R	С		С	С				
Convene/Lead scoring meeting	S	S	S	ı	R					R	S	I	1	S				
Compile scores					R					R								
Negotiate designer contract	R		S	С	С					R		ı	С	С				
Prepare award recommendation for City Council	S		С		R	S			С	R		С		S	S			С
Design Management																		
Execute designer contract	S	S	А	С	R	С	С			S	S	А	С	R	С	С		
Issue NTP to designer	С				R					R				S				
Coordinate/conduct design kickoff meeting	R	S	S		ı					R	S	ı		ı				
Hold design charette / programming exercise	R	S								R	S							1
Monitor design scope/schedule/budget	R	С								R	1	1						ĺ

			1		1		T			l			1	I	I		
Monitor OPCC/Constuction Cost Estimates	R	С							R	С							
Approve design progression at 30/60/90% milestones									R	I							
Coordinate permitting	R	С							R	S							
Review/approve Construction Documents	R	С		С	С				R	I		С	S				
Bid & Award																	
Develop bid package for advertisement	S	S		С	R				R	S		С	S				
Advertise for bid					R								R				
Conduct pre-bid meeting	S	S	I	Į	R				R	S	Ţ	Ι	S				
Conduct bid opening	S				R				S				R				
Review bids for responsiveness	S				R				S				R				
Confirm validity of surety			Α	С	R						А	С	R				
Negotiate outstanding items/contract	R			С	С				R			С	С				
Prepare recommendation of award for City Council	S	1	С			R		С	R	I	С			S			С
Construction																	
Execute construction contract	S	S	Α	С	R	С	С		S	S	А	С	R	С	С		
Schedule pre-construction meeting	R	S	I		С				R	S	1		S				
Schedule groundbreaking ceremony	S	R	С						S	R	С						
Monitor scope/schedule/budget	R	ı	ı						R	I	I						
Inspect work for conformance with Construction Documents	R								R								
Review/Process periodic Pay Applications	С		ı	(C)	R				R		I	(C)	ı				
Review/Process Change Order requests	S	С	С	S	R	С			R	С	С	S	S	С			
Monitor contingency use	R	ı							R	I							
Coordinate trade inspections/approvals	R	ı							R	I							
Develop punch list	R	S					S		R	S						S	
Issue Notice of Substantial/Final Completion	R								R								
Coordinate commissioning/technology transfer/training	R	S					С		R	S						С	
Close Out & Warranty																	
Create/Process Final Amending Change Order	R	ı	С		С	С			R	I	С		С	С			
Track warranty items	R	С					С		R	С						С	
Coordinate w/ contract for resolution of warranty items	R	С					С		R	С						С	
Schedule/conduct final warranty walkthrough	R	С					С		R	С						С	
Continuous																	
Report on project scope/schedule/budget	R	ı	ī	ı	ī		ı		R	ı	I	ı	ı			ı	
													_	_			

### **APPENDIX D**

**Proposed Project Management Framework** 

## **Construction Management Division**



Project Management Framework 02/10/25

This Project Framework includes examples of entries derived from a proposed, revised approach to project management within the Construction Management Division. It should not be considered final, and should be updated continuously as new expectations, resources, and refinements are developed.

Project Phase	Roles/Responsibilities (See RAM)	Desired Outcomes	Process	Tools/Templates	Standards	Reporting
CIP Development	CMD leads development of Project Charter, Stakeholder Register, Building Program, Project Scope, and Conceptual Cost Estimate in coordination with Client Department, Facilities, and CMO.	Clear understanding of project scopes and portfolio priorities.  Sufficient future-year funding to cover priority projects, including likelihood of grant funding availability.  Sufficient project contingency to offset variability in pricing, permitting, and/or programming.  Appropriate level of stakeholder involvement.	CMD inclusion (with sufficient lead time) in CIP submittal/validation process.  Budget based on Phase (Land Acquisition, Design, Construction)	Planning-level budgeting template.  Project Charter  Stakeholder Register	Standard CoF Building Programs	CIP document, updated annually for future-year projects to reflect escalation if different from expected.
Project Initiation	Once funding is budgeted by Finance, CMD leads development of Project Plan, budget/schedule, and all project documentation in coordination with the Client Department. CMD schedules and conducts the project kickoff meeting.	Clarity in project goals, approach, risks, and responsibilities.  Predictable approach to communications and reporting throughout project lifecycle.	TBD	Project Plan  Risk Register  Communications Matrix  Responsibility Matrix	TBD	TBD





Project Management Framework 02/10/25

Design Solicitation & Award	CMD develops the RFQ in close coordination with the Client Department, CMO, CAO, and Purchasing.	Selection of a well-qualified, competent, proactive designer who has a clear understanding of project goals and City expectations.	TBD	Standard Template RFQ for Design Services	NCGS Qualifications-Based Selection Laws CoF Procurement Regulations	TBD
Design Management	Following Purchasing's management of the design contract execution, CMD is responsible for issuing the design NTP and schedules/leads the design kickoff meeting. CMD conducts design/programming charettes as needed to gain input from Client Department and stakeholders. CMD monitors the project scope/schedule/budget during design, monitors OPCCs, reviews and approves design progress at 30/60/90 design milestones, coordinates permitting, and reviews/approves construction documents in collaboration with the Client Department.	Complete construction documents that satisfy the Client Department' needs, are constructable, and that can be constructed within the City's available budget.	TBD	TBD	Agreed-upon Building Program  Security System Standards  Building Automation Standards  IT System Requirements  AHJ/Permitting Requirements	Project Dashboard/PMIS reporting of budget, schedule, and issues.
Bid & Award	CMD leads development of the bid package in close coordination with Purchasing and support from the Client Department, conducts the prebid meeting, negotiates outstanding items with the contractor, and prepares the Council award recommendation.  Purchasing leads the bid advertisement, bid opening, bid	Award of the project to a responsible prime contractor who is able to construct the project in accordance with the approved construction documents on time and on budget.  Inclusion of MWBE subcontractors and suppliers in compliance with CoF requirements.	TBD	Standard contract and bid document templates	NCGS Bidding Laws  CoF Procurement Regulations	TBD





Project Management Framework 02/10/25

	responsiveness review, and confirms the validity of surety in close coordination with CAO.					
Construction	Following execution of the construction contract, led by Purchasing, CMD is responsible for scheduling and conducting the pre-construction meeting, monitoring scope/schedule/budget through construction, ensuring that work conforms with the Contract Documents (including use of consultants for CA/RPR services), reviews and approves periodic pay applications, reviews and approves change order requests, monitors contingency usage, coordinates inspections, develops the punch list in coordination with the designer, issues notices of substantial and final completion, and coordinates commissioning (including the use of a commissioning agent, as appropriate).	Construction completed in accordance with approved construction documents on time and on budget. Timely processing of pay applications, RFIs, change orders, and other contractor communications.  Proactive and transparent management of contract contingency and project issues.	TBD	City Standard Pay Application Template  City Standard Change Order Template  City Standard Cost Change Event Template	OSHA Safety Regulations  CoF Procurement Regulations	Project Dashboard/PMIS reporting of budget, schedule, and issues.
Close Out & Warranty	CMD is responsible for developing and processing the final amending change order/project reconciliation, documenting and tracking warranty items and coordinating their resolution, and scheduling and conducting the final warranty walkthrough in coordination with the Client Department and Facilities.	Receipt of facility functioning as per the building program, approved design, and City expectations. Clear delineation of responsibilities for warranty items.	TBD	Standard Punchlist Template  Standard Project Closeout Checklist/Template	TBD	TBD





Project Management Framework 02/10/25

Continuous	CMD is responsible for providing	Transparent reporting on	TBD	Dashboard or PMIS Project	Established CoF information	Project Dashboard/PMIS
	continuous reporting on the	project progress throughout		Manager Interface	availability standards	reporting of budget,
	project scope, schedule, and	the project lifecycle to				schedule, and issues.
	budget throughout the project	enable real-time decision				
	lifecycle.	making on scope, budget,				
		and schedule.				

### **APPENDIX E**

**Project Management Templates** 



## City of Fayetteville Project Name Project Charter

#### **BACKGROUND**

Why is the project being undertaken? Describe an opportunity or problem that the project is to address.

#### **GOALS**

- 1. Specific & measurable goal
- 2. Specific & measurable goal
- 3. Specific & measurable goal

#### **SCOPE**

What will be the end result of the project? Describe what phases of work will be undertaken. May also be important to mention what activities will not be included in this project.

#### **CRITICAL SUCCESS FACTORS**

List factors or goals that are considered to be measures of success (e.g., support from a neighborhood association, construction completed prior to the first day of school, expending all funds by a certain date prior to the expiration of grant, etc.)

#### **KEY STAKEHOLDERS**

Client department	Name (i.e., the department that will provide O&M on the asset after construction.)
Sponsor	Name (i.e., usually the department managing the project for the organization).
Project manager	Name
Project team members	Name. Name. Name

#### **PROJECT MILESTONES**

Identify the significant project milestones: start date, end date and dates that may impact construction activities, etc.

#### **PROJECT BUDGET**

Summarize the project budget – design, utility relocation, remediation, land acquisition, construction, etc. List funding sources if there are funding sources from multiple entities or sources.

#### **CONSTRAINTS, ASSUMPTIONS, RISKS AND DEPENDENCIES**

Constraints	Describe here potential factors that will impact the delivery of the project
Assumptions	Describe here conditions or situations that you are relying on in order to
Assumptions	achieve project goals
Risks and	What are the most significant risks? What things must happen before the
Dependencies	project is delivered?

Template Developed by:





## City of Fayetteville Project Name Project Charter

APPROVAL SIGNATURES		
[Name], Project Client	[Name], Project Sponsor	[Name], Project Manager
[Name], Position	[Name], Position	[Name], Position



# <PROJECT NAME> PROJECT PLAN

Prepared for:

## **City of Fayetteville**



<DATE>

Prepared by:

<FIRM NAME AND OR LOGO>
 <Firm Address>
<Firm Registration Number>

Template developed by:



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#### Note to the Author

This document is a template of a Project Plan. The template includes instructions to the author, boilerplate text, and fields that should be replaced with the values specific to the project.

- Red italicized text enclosed in square brackets ([text]) provides instructions to the document author, or describes the intent, assumptions and context for content included in this document.
- Red italicized text enclosed in angle brackets (<text>) indicates a field that should be replaced with information specific to a particular project.
- Text and tables in black are provided as boilerplate examples of wording and formats that may be used or modified as appropriate to a specific project. These are offered only as suggestions to assist in developing project documents; they are not mandatory formats.
- Delete these and other notes to the author in the template when developing the Project Plan.

#### 1.0 DOCUMENT HISTORY AND DISTRIBUTION

#### 1.1 REVISION HISTORY

Revision Date	Description of Change	Author	Approver
			_

#### 1.2 DISTRIBUTION

Recipient Name	Recipient of Organization	Method of Delivery	Date

## 2.0 PROJECT CHARTER

[It is important to include a copy of the signed Project Charter in the appendix of the project plan. The Project Charter is not intended to take the place of the project plan. It is intended to summarize a few key items that are important to the Owner. For instance, the stakeholders listed in the Charter will be not list all the stakeholder that you as the PM identify in Section 4.0. It should focus more on who the city considers to be the main stakeholders. Likewise, with constraints, assumptions, dependencies; list key assumptions the city or city staff have made in creating and funding this project. Do not list assumptions that will go into the design, or project constraints like working in a narrow ROW, etc. This level of detail and analysis should be included in the Project Plan, not the Project Charter. A Project Charter template is available on the Teams Site.]

A Project Charter was developed in cooperation with city staff to document project goals; identify key stakeholders; and list constraints, assumptions, and dependencies. The Project charter was signed by all city departments that are deemed to be a stakeholder in the project. A copy of the Project Charter is included in the Appendix.

#### 3.0 PROJECT OVERVIEW

[Provide a concise summary of the project goals and objectives to be accomplished with the project. If this project is being constructed to solve an operational problem, then explain the issue and how the project will address the problem. If the project expands a service, then explain how the project will allow the city to better provide that service.]

#### 3.1 PROJECT DELIVERABLES

[List the documents to be delivered to the city at the end of this project. Make a brief list of the final project deliverables...final signed/sealed construction plans, a master plan, a facility condition assessment, etc.]

#### 4.0 STAKEHOLDER ANALYSIS

[An important step early in the process of developing a project plan is to identify all the stakeholders involved in the project. Stakeholders include, but are not limited to, anyone who is involved in the delivery of the project, anyone impacted during implementation or construction, and the department or individual who will own/operate the infrastructure or asset constructed or installed at the end of the project. Stakeholders might be agencies that will issue permit for the project, provide funding through and ILA or MOU, etc. Many stakeholders will create some type of risk during lifecycle of your project. A stakeholder analysis should be completed first. Doing so will allow you to conduct a better Risk Response Plan (explained later in this document), Communication Plan (explained later in this document), and Schedule. A graphical tool to assist the team during the stakeholder analysis is available on the Teams Site.]

A stakeholder analysis was developed for this project and is included as part of this plan. In general, the key stakeholders on this project include:

- <Name>
- <Name>
- <Name>
- <Name>

#### 5.0 PROJECT ORGANIZATION

[Describe the project organizational structure, identify organizational boundaries and interfaces, and defines individual responsibilities for the various project elements. Begin by describing the organization of the Owner (e.g., is there a CIP Department that is delivering a project for a department that is primarily focused on operations). Describe any project partners that may be contributing funds through an ILA or MOU. Finally describe the consulting team and subconsultants.]

#### 5.1 ROLES & RESPONSIBILITIES

[Briefly describes the consulting team members, their organization, and list their contact information in a table. A matrix of functions and activities versus responsible individuals may be used to depict project responsibilities. This is commonly called a Responsibility Assignment Matrix and it designates which team member is **R**esponsible, **A**ccountable, **C**onsulted, and **I**nformed. A sample Responsibility Assignment Matrix is available on the Teams Site.]

A Responsibility Assignment Matrix was completed for this project and is attached.

#### 6.0 RISK RESPONSE PLAN

[Identify and assess the risk factors associated with the project. Describe the mechanism(s) for tracking the various risk factors and implementing contingency plans. Risk factors that should be considered include, but not limited to contractual risk; technology; public engagement; external agency coordination; constructability; land acquisition; private utilities; availability of materials, supplies, and resources; available times for construction or implementation, etc. A Risk Response template is available on the Teams Site.]

A Risk analysis was completed as part of the project planning phase. The following departments participated in the exercise: list all the departments present. A copy of the Risk Register is attached to this project plan.

#### 6.1 ASSUMPTIONS, DEPENDENCIES, AND CONSTRAINTS

This section will state the assumptions on which the project is based, the external events the project is dependent upon, and the constraints under which the project is to be conducted.

#### Assumptions

- <Assumption>
- <Assumption>

<Assumption>

#### Dependencies

- <Dependency>
- <Dependency>
- <Dependency>

#### Constraints

- <Constraint>
- <Constraint>
- <Constraint>

#### 7.0 COMMUNICATION PLAN

[Describe the communication plan to be used during the project. Describe how information will be conveyed between the city and the consultant/contractor. Describe how the project manager will communicate with the rest of the team. Describe how the project manager will communicate with the stakeholders. Also describe the frequency of planned meetings needed for the project. Explain who will develop meeting agendas and who will record/distribute the Meeting Minutes. Describe how these and other documents will be used to properly communicate meetings action items, issues, risk response and project status to various people associated with the project. Describe the process to report incidents and accidents that may occur during construction on the project site. It's important to note that this is a project Communication Plan, not a project Public Engagement Plan.]

#### 7.1 CONTACT LIST

Name	Organization	Phone	Email

### 7.2 DISTRIBUTION OF DELIVERABLES

Document Name	Recipient	Method of Delivery

## 7.3 PROJECT COMMUNICATION PLAN

Audience	Information to Convey	Delivery Method	Frequency
e.g., residents, committees, elected officials, staff, permittees, landowners, franchise utilities, etc.	e.g., schedule updates, project impacts, ROW needs, utility interferences, etc.	e.g., status meeting, letter, email, social media post, community update meeting, formal presentation at Council Meeting, website updates, etc.	e.g., weekly, monthly, Quarterly, Milestones, etc.

#### 8.0 CHANGE CONTROL PLAN

[During the course of the project change will inevitably occur and prompt the need for a change order. Describe in this section how you, as the project manager, intend to communicate the need for changes, the cost implications of the change, and the process to negotiate the cost of the change. Also describe the escalation procedure and triggers.]

#### 9.0 DOCUMENT CONTROL PLAN

[Keeping good documentation and project files is critically important. In many cases it is required by law to retain project files for capital improvement projects. In this section describe how/where paper files and electronic files will be stored and develop a project specific file index.]

#### **10.0 QUALITY PLAN**

[Explain how you, as the project manager intend to control quality on this project. Describe who will review milestone deliverables, who will check work performed in house, the role of a construction manager, the construction inspector, the role of a material testing laboratory, etc.]

#### 11.0 PROJECT SCHEDULE

[A project schedule should be developed using Microsoft Project. Ensure you take into account the time needed for internal reviews, public engagement, City Council Action, holidays, etc.]

Below is a summary of the major project milestones.

- Design NTP
- Preliminary Engineering Report
- 30% Complete Milestone Submittal
- 60% Complete Milestone Submittal
- 90% Complete Milestone Submittal
- Final Submittal
- · Project Advertised for bidding
- Construction NTP

A copy of the detailed project schedule is attached.

## 12.0 PROJECT BUDGET

[Summarize the project budget. Breakdown the cost for design, construction, land acquisition, etc. Also, list the funding sources and describe any specific constraints that could potentially be

associated with the funding source if it was not discussed in Section 6.1 – CDBG Reporting, Grant Funding, State/Local Funding, Loans, etc.]

#### **13.0 ATTACHMENTS**

### [List any/all attachments here.]

- A. Project Charter
- B. Stakeholder Analysis
- C. Responsibility Assignment Matrix
- D. Risk Register
- E. Project File Index
- F. Schedule(s)
- G. Meeting Minutes that document Key Decision
- H. Contract(s) / ILA's / AFA's / MOU's



**Project Name** 

**Responsibility Matrix** 

R - Responsible - owns the project

C- Consulted - has information and or capability necessary to complete the work

A - Accountable - who must sign off (approve) on work before it is effective

I - Informed - must be notified of results, but need not be consulted

S- Supportive - provide resources

#	Task	Team Member									
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											



Risk Register

Prepared: xx/xx/xxxx

Step 1. Review and Update Risk Thresholds for Project (update the thresholds in each table - if necessary - not the table structure itself)

#### **Capital Project Risks**

Risk Assessment Guidance Table	1	2	3	4	5
Cost Impact	\$10k - \$100k	\$100k - \$1M	\$1M - \$10M	\$10M - \$100M	>\$100M
Schedule Impact	Days	1 to 4 Weeks	1 to 3 Mo.	3 to 6 Mo.	> 1 Yr.
Probability	<10%	10% - 35%	36% - 64%	65% - 89%	90% - 99%

Step 2. Identify Project Risk Management Team (replace names/place holders below with team names)

Personnel	Role Notes
	Leave the blank (helps with formatting in tables using lists)
<cmd name="" pm=""></cmd>	Project Manager
z-other 2	
z-other 3	
z-other 4	
z-other 5	
z-other 6	
z-other 7	
z-other 8	
z-other 9	
z-other 10	
z-other 11	
z-other 12	
z-other 13	
z-other 14	
z-other 15	
z-other 16	
z-other 17	
z-other 18	
z-other 19	
	If additional staff are needed, add rows above this line to update lists

Capital Project Risks (Life Cycle, Operational, or Client Facing Contract Management Risks)

Risk Assessment Guidance Table	1	2	3	4	
Cost Impact	\$10k - \$100k	\$100k - \$1M	\$1M - \$10M	\$10M - \$100M	>\$100M
Schedule Impact	Days	1 to 4 Weeks	1 to 3 Mo.	3 to 6 Mo.	> 1 Yr.
Probability	<10%	10% - 35%	36% - 64%	65% - 89%	90% - 99%

Risk Identification					Risk Ass	essment				Risk Management				
Risk #	Risk Description	Cause	Effect	Cost Impact	Schedule Impact	Probability	Risk Rating	Owner	Risk Response	Approach	Mit. Cost Impact	Mit. Schedule Impact	Mit. Probabilty	Mit. Risk Rating
Example: LC1		Unforeseen or misunderstood compliance requirements cause issue with acceptance of work	City breach or loss of/delay in payment for Project	5	4	4	36	Chuck Wolf		Leverage Subconsultant to support with compliance (planning/design) and audit support services (delivery)	4	4	2	16
							0							0
							0							0
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Capital Project Risks (Life Cycle, Operational, or Client Facing Contract Management Risks)

Risk Assessment Guidance Table	1	2	3	4	5
Cost Impact	\$10k - \$100k	\$100k - \$1M	\$1M - \$10M	\$10M - \$100M	>\$100M
Schedule Impact	Days	1 to 4 Weeks	1 to 3 Mo.	3 to 6 Mo.	> 1 Yr.
Probability	<10%	10% - 35%	36% - 64%	65% - 89%	90% - 99%

	Risk Identification				Risk Asse	essment		Risk Management						
Risk #	Risk Description	Cause	Effect	Cost Impact	Schedule Impact	Probability	Risk Rating	Owner	Risk Response	Approach	Mit. Cost Impact	Mit. Schedule Impact	Mit. Probabilty	Mit. Risk Rating
Example: O1	Mechanical systems (valves or gates) fail during emergency event limiting benefit of improvements.	Power failure or mechanical failure	Loss of functionality	2	4	3	18	Blair Hinkle		Plan projects to eliminate mechanical systems for shunting of flow in the collection system	2	3	1	5
							0							0
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							0							0
							0							0





**Project Name** 

**Stakeholder Analysis** 

Level of Interest: 5 - Very High (Directly impacted by the project)

4 - High (Inconvenienced by project)

3 - Moderate (Not impacted by the project, but regularly follow and monitor project impacts)

2 - Low (Aware of the project, but not regularly following the status of the project)

1 - None (Not necessarily aware of the project)

Level of Influence: 5 - Very High (Elected officials, key decision makers, etc.)

4 - High (Individuals to direct access to key decision makers, adjacent property owners, etc.)

3 - Moderate (Journalist, bloggers, social media influencers, permittees, etc.)

2 - Low (Members of the public impacted by the project)

1 - None

Stakeholder	Title/Role/Position	Level of Influence	Interest in Project	Level of Interest	Support/Mitigation Strategy	Comments

