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COMMISSIONING PLAN

I. Introduction

- A. The Department of Veterans Affairs (VA) is committed to commissioning new facilities and systems required for the reliable, safe, and secure operation of the 1st Floor “C” Administration and 3rd Floor “B” Clinical renovations in building 170 at the Veterans Administration Medical Center in North Little Rock, Arkansas. This process will verify that systems are complete and functioning properly upon project completion and that the facilities maintenance staff has appropriate system documentation and training.
- B. Commissioning consists of systematically documenting that specified components and systems have been installed and started up properly and then functionally tested to verify that systems are complete and functioning properly upon project completion and that the VAMC Facilities Management (FMD) staff has the appropriate system documentation and training. In addition, owner-personnel training will be verified and final project Operation & Maintenance (O&M) documents will be reviewed for completeness.
- C. This document is intended to be a roadmap for the parties involved in the Commissioning process. The document will explain the systems to be commissioned, the process activities, the procedures to follow throughout the commissioning process, and the roles and responsibilities for each party involved. The commissioning activities will begin during the design phase of the project and proceed through the warranty period.
- D. The team members for this project are committed to commissioning this facility and systems required for the reliable, safe, and secure operation of the Facility. This process is intended to verify that systems are properly installed, configured and operating in accordance with the requirements of the project and that operating personnel are adequately prepared to successfully operate the facility at project turnover.
- E. For this project, the Department of Veterans Affairs establishes AE Design contracts for Design Phase and Construction Period Services. The Department also establishes a construction contract with a Prime Contractor to provide construction services. Both contracts are administered by a VA Contracting Officer or warranted delegate. During the Design Phase, this representative is the Project Manager; during the construction phase, it is the Resident Engineer. On every project, the authority to modify any contract is strictly limited to the Contracting Officer and his/her designated representative.

- F. In this structure, all communications on contractual issues are strictly limited to communications between the VA and the prime contractors (AE Team and Prime Contractor). It is the practice of the VA to require that communication between other parties to the contracts (AE Sub-consultants, Subcontractors and Vendors) be routed through the prime contractors and the VA.
- G. Whole Building Commissioning is a process that relies upon high levels of communications and collaboration between all parties to the construction process. By its nature, the levels of communication and cooperation between the Commissioning Authority and all other parties to the construction process (Architects, Engineers, Subcontractors, Vendors, third party testing agencies, etc) is essential to the success of the Commissioning effort.
- H. With this fundamental goal in mind, this Commissioning Plan has been developed to recognize that, in the execution of the Commissioning Process, the Commissioning Agent must develop effective methods to communicate with every member of the construction team involved in delivering commissioned systems while simultaneously respecting the exclusive contract authority of the Contracting Officer and his/her Designated Representative. Thus, all procedures outlined in this manual must be executed within the following limitations:
1. The Commissioning Agent may maintain a continuous open communication with the AE team, including sub-consultants, the Contractor and subcontractors and the Owner's team to facilitate a collaborative commissioning process subject to the specific limitations outlined below.
 2. All communications shall be copied to the VA Project Manager (Design Phase) and Resident Engineer (Construction Phase).
 3. All Communications shall include specific reference to these contract limitations (e.g., "All issues identified in this Commissioning Issues Log are subject to Paragraph 2.5: Contractual Relationships in the VA Commissioning Process Manual."
 4. All information from the Commissioning Agent to any party to the project must be transmitted with the following clear limitations:
 - a. No communications (verbal or written) will be deemed to constitute direction that modifies the terms of any contract between the Department of Veterans Affairs and any party to the construction project.
 - b. Commissioning Issues communicated in writing to the Contractor or AE Team and copied to the PM/RE are provided to all parties to the contract to expedite communication. All issues must be understood as the professional opinion of the Commissioning Agent and suggestions for issue resolution only until expressly approved as direction by the Project Manager or Resident Engineer.
 - c. In the event that any Commissioning Issues and suggested resolutions are deemed to require either an official interpretation of the construction documents or are

determined to require a modification of the contract documents, Contracting Officer will issue an official directive to this effect.

- d. All parties to the Commissioning Process shall be individually responsible for alerting the COR of any issues that they deem to constitute a potential contract change prior to acting on these issues.
- e. Authority for design and construction issues resolution rests solely with the Contracting Officer and his/her designated representative with appropriate technical guidance from the AE Team and/or Commissioning Agent.

I. Abbreviations

- 1. Operations and Maintenance (O&M)
- 2. VAMC Project Manager and/or Resident Engineer (PM/RE)
- 3. VAMC Facilities Management Department Staff (FMD)
- 4. Design Professionals (D)
- 5. Construction Manager (CPM)
- 6. Installation Contractors (CONTR)
- 7. Testing, Adjusting & Balancing Contractor (TAB)
- 8. Commissioning Authority (CxA)
- 9. Request for Information (RFI)
- 10. Architect's Supplemental Instructions (ASI)
- 11. Design Development Documents (DD)
- 12. Construction Documents (CD)
- 13. Commissioning (Cx)
- 14. Functional Performance Test (FPT)
- 15. Pre-Functional Checklist (PFC)
- 16. Corrective Action Notice (CAR)
- 17. Quality Control (QC)
- 18. Contracting Officer's Representative (COR)

II. Commissioning Goals

A. The Commissioning Authority has developed specific Commissioning Goals to emphasize the role commissioning will play in the design and construction processes:

- ❖ Meet or exceed VAMC Project Requirements
- ❖ Optimize Systems Operations
- ❖ System operation and performance verification
 - Performance Test results
 - Pre-Functional checklists
 - Equipment startup
- ❖ Documentation and Training for FMD Staff
 - Operating instructions and documentation
 - Operator equipment training
 - Operator systems training
- ❖ Integrate Testing Schedules into Construction Schedule
 - Coordination of trades
 - Coordination of DDC vendor tasks
 - Coordination of TAB vendor tasks
- ❖ Early identification and resolution of issues
- ❖ Clear and open communications

III. Project Description

A. This project includes renovations of two unique areas in the large Building 170 @ the VAMC in North Little Rock, Arkansas. Services provided in the Commissioning scope of work are limited to design phase work only.

B. Areas to be renovated:

1. First floor area "C", currently an abandon clinic / outpatient area will be converted to intake administrative space with a new exterior entrance and handicap ramp. Renovated space is approximately 1600 square feet. Project will include demolition of existing interior partitions, electrical distribution, lighting, mechanical and plumbing.

Renovation will include new interior partitions, new electrical distribution, new LED lighting, reconfiguration of existing variable air volume HVAC terminals connected to the existing units and update low flow plumbing fixtures.

2. Third floor area “B”, currently is the Geriatric and Extended Care (GEC) facility. Renovated use will continue in this vain and will incorporate the PACT operative model of “Teamlets”.

Renovated space is approximately 12,000 square feet. Work will include very extensive demolition of existing interior partitions, electrical distribution, lighting, mechanical and plumbing. Much of the demolition will impact adjacent areas and will significantly impact service provided by central electrical and mechanical systems.

Renovations will include new interior partitions, new electrical distribution, new T-8 lighting, new variable air volume HVAC terminals connected to the existing central system units, new exhaust system laterals connected to existing central exhaust fan systems, upgraded DDC controls and updated low flow plumbing fixtures. Additionally a few of the designated patient areas will be equipped with wheel chair lifts capable of lifting the patient and the patient’s escort.

IV. Commissioning Scope

- A. Cromwell Energy Services will provide design commissioning services to support the 3B VA project. Commissioning activities will include the design phase tasks and deliverables outlined below.

Commissioning Scope			
Project Phase	Task	Description	Deliverable
Design	Review Owner’s Project Requirements	Review VAMC Design Criteria and Owner’s Project Requirement document prior to submission to LEED Facilitator.	OPR document LEED Checklist
Design	Review Basis of Design Document	Review the Basis of Design Document prior to submission to the LEED Facilitator	.Include in OPR document

Commissioning Scope			
Project Phase	Task	Description	Deliverable
Design	Review Schematic design	Review Schematic Design for familiarization, general conformance with Owner's Project Requirements, Basis of Design and VA Design Criteria.	Review comment log.
Design	Review Design Development design	Review Design Development design for familiarization, general conformance with Owner's Project Requirements, Basis of Design and VAMC Design Criteria.	Review comment log.
Design	Commissioning Specifications	Prepare Commissioning Specification "Section 01 91 13 – General Commissioning Requirements" to be included in project manual.	Commissioning Specification
		Prepare Commissioning Specification for Division 21 – Fire Protection, Division 22 – Plumbing, Division 23 – HVAC, Division 26 – Electrical, to provide detailed commissioning, operations & maintenance and training requirements for individual technical specification sections.	Commissioning Specifications
Design	Design Phase Controls Meeting	Meet with Owner, Architect, Mechanical/Electrical Design Engineer, and Owner's Controls Vendor to review Building Control Systems and Sequences of Operations. The focus of the meeting will be to obtain understanding of the interactions between systems and the control system in various operating modes. It is anticipated this meeting will be held in conjunction with a scheduled Owner/Architect design-phase meeting.	Meeting notes.
Design	Preliminary Commissioning Plan	Prepare Preliminary Commissioning Plan that describes the Commissioning Process, Commissioning Team with specific Roles and Responsibilities. The Commissioning Plan will include description of systems to be commissioned.	Preliminary Commissioning Plan

Commissioning Scope			
Project Phase	Task	Description	Deliverable
Design	Focused Design Document Review	Perform a focused review of a Design Document SD-1, SD-2, DD-1, DD-2, CD, and Final submissions.	Commissioning Design Review Log
Design	Focused Construction Document Review	Perform a focused review of the final Construction Document submission. This review will include a back check of commissioning comments provided during previous reviews.	Commissioning Design Review Log
Design	Design Phase Meetings	Participate in selected Design Phase Owner/Architect/ meetings.	Meeting Notes.
Design	Focused Design Review Meetings	Attend selected meetings with Owner and Design Team to review the design and specific commissioning design review comments. It is assumed this meeting will be scheduled in conjunction with scheduled Owner/Architect meetings.	Meeting Notes.
Design	LEED Commissioning-related Document Review	Assist LEED Facilitator with final review of commissioning-related design-phase LEED templates and required documentation.	Brief Narrative Reports
Design	Complete Design Phase Commissioning	Complete design phase services with CD delivery for pricing.	Final Design Phase report.

B. Design Phase Commissioning Services will be provided by the Little Rock office of Cromwell Energy Services.

V. Systems to Be Commissioned

A. The systems and equipment to be commissioned are outlined in the table below.

Systems To Be Commissioned					
System	Pre-Functional Checklists	Equipment Startup	Functional Testing	Sample Size	Remarks
Div 22 - Plumbing					
Domestic Hot Water Systems	Yes	Yes	Yes	100%	[list applicable bid packages or other remarks]
Div 23 - HVAC					
Zone Level HVAC Systems (VAV terminals-air distribution) Note: Existing VAV terminals will be reused.	Yes	Yes	Yes	100%	[list applicable bid packages or other remarks]
Heating Hot Water Systems	Yes	Yes	Yes	100%	[list applicable bid packages or other remarks]
Exhaust System (Exhaust air distribution)	Yes	Yes	Yes	100%	[list applicable bid packages or other remarks]
Direct Digital Control System	Yes	Yes	Yes	100%	[list applicable bid packages or other remarks]
Radiology/Imaging Cooling Systems	Yes	Yes	Yes	100%	[list applicable bid packages or other remarks]
Div 26 - Electrical					
Normal Power Distribution Systems	Yes	Yes	Yes	100%	[list applicable bid packages or other remarks]
Life Safety Power Distribution Systems	Yes	Yes	Yes	100%	[list applicable bid packages or other remarks]
Critical Power Distribution Systems	Yes	Yes	Yes	100%	[list applicable bid packages or other remarks]
Essential Equipment Power Distribution Systems	Yes	Yes	Yes	100%	[list applicable bid packages or other remarks]
Lighting Controls	Yes	Yes	Yes	100%	[list applicable bid packages or other remarks]

VI. Commissioning Team

- A. The Commissioning Team shall consist of representatives from the following parties involved in the design and construction of this facility. The time at which individual members join the team and the level of their participation during the different phases of the project will vary from member to member.

Commissioning Team			
Item	Team Member	Description	Contact Information
DE	VAMC- Engineering Director	Program Management Director, responsible for contractual and technical aspects of the project.	Name Jon Miller PE Organization VA Resident Engineering Director Phone: 501.257.1002 Email: Jon.Miller@va.gov
RE-PM	VAMC-Resident Engineer-Project Manager	On-site technical representative of the Contracting Officer.	Name Karl Serbousek PE Organization: VA Resident Engineer Staff Phone: 501.351.1570 Email: SKarl.Serbousek@va.gov
VA-EM	VAMC-Facilities Energy Manager	Arkansas VA Facilities Energy and Sustainability Manager	Name Marty Risner PE Organization VA Resident Engineering Staff Phone: 501-944-3710 Email: Marty.Risner@va.gov
QA	VAMC-Quality Assurance Coordinator	FMD Quality Assurance coordinator for Commissioning activities	Name Organization Address City, State Zip Phone: Email:

Commissioning Team			
Item	Team Member	Description	Contact Information
A	Architectural Design Professional	Architect's Representative	Name Mike Hicks Organization BES Design Build Phone: 501.313.2979 Email: mhicks@bes-design-build.com
MEP	Mechanical, Electrical and Plumbing Design Professional	MEP Construction Administration Representative	Name Brett Turkall PE Organization BES Design Build Phone: 352.284.0100 Email: bturkall@bes-design-build.com
CxA	Commissioning Agent (Design Phase Only)	Project Manager for Commissioning Agent	Name Tom Hanlon Organization Cromwell Energy Services Phone: 501.749.2122 Email:Thanlon@cromwell.com
CxTL	Commissioning Agent Technical Lead (Design Phase Only)	Primary point of contact for Commissioning technical issues	Name Tom Hanlon Organization Cromwell Energy Services Phone: 501.749.2122 Email:Thanlon@cromwell.com
CPM	Construction Project Manager	Contractor's Project Manager responsible for construction and coordination of sub-contractors	Name Organization Address City, State Zip Phone: Email:

Commissioning Team			
Item	Team Member	Description	Contact Information
CQC	Quality Control Manager	Contractor's Quality Control Manager responsible for managing the construction quality program	Name Organization Address City, State Zip Phone: Email:
FP	Fire Protection Contractor	Commissioning Representative for the Sub-contractor responsible for installation of fire protection systems	Name Organization Address City, State Zip Phone: Email:
PLMG	Plumbing Contractor	Commissioning Representative for the Sub-contractor responsible for installation of plumbing systems	Name Organization Address City, State Zip Phone: Email:
HVAC	Mechanical Contractor	Commissioning Representative for the Sub-contractor responsible for installation of HVAC systems	Name Organization Address City, State Zip Phone: Email:
EC	Electrical Contractor	Commissioning Representative for the Sub-contractor responsible for installation of MV and LV electrical systems	Name Organization Address City, State Zip Phone: Email:

Commissioning Team			
Item	Team Member	Description	Contact Information
SC	Specialty Systems Contractor	Commissioning Representative for the Sub-Contractor(s) responsible for installation of specialty and/or low voltage systems	Name Organization Address City, State Zip Phone: Email:
DDC	DDC Vendor	Commissioning Representative for the DDC vendor responsible for providing the control system(s)	Name Organization Address City, State Zip Phone: Email:

- B. Roles and Responsibilities for the Commissioning Team members are described elsewhere in this Commissioning Plan.

VII. Commissioning Communications and Document Distribution

- A. Determine by BES Design Build..

VIII. Pre-Design Phase Commissioning

- A. Design Intent Document: During the Pre-Design Phase, VAPM will solicit and award contracts for the Design Team, Construction Manager and Commissioning Authority. Once these contracts are executed, the Design Team will begin developing the project design. The CPM will assist the Design Team by providing advice on construction issues and periodic cost estimates. The Design Team will prepare a Design Narrative to document the VA project requirements. The mechanical, electrical, plumbing, controls and other technical sections will provide a reference for all design and commissioning requirements. This document will be updated as needed during the design process to document changes in the VA project requirements.
- B. Design Narrative: The Design Team will also prepare a Design Narrative that provides documentation on the design assumptions, design parameters, design calculations, and decisions made during design to implement the Design Intent Document. The Design Narrative is also submitted to the VAPM for review.
- C. The goal of the commissioning tasks in the Pre-Design Phase of the project include the following:
 - 1. The CxA, PM, CPM and FMD representatives will review and provide written comments on the Design Intent Document.
 - 2. The CxA, PM, CPM and FMD representatives will review and provide written comments on the Design Narrative.

IX. Design Phase Commissioning

- A. Schematic Design Phase: The goals of the commissioning tasks in the Schematic Design Phase of the project include the following:
 - 1. The CxA, PM, and FMD representatives will review and provide written comments on the Schematic Design documents submitted by the Design Team. The focus of the CxA review will be on adherence to the Design Narrative. The review comments will be geared towards aligning the design and design narrative with the Design Intent Document and/or updating the Design Narrative with decisions approved by VA during the Schematic Design Phase.
- B. Design Development Phase: The goals of the commissioning tasks in the Design Development Phase of the project include the following:

1. The CxA, PM, and FMD representatives will review and provide written comments on the Design Development documents submitted by the Design Team. The focus of the CxA review will be on adherence to the Design Narrative as updated after the Schematic Design Phase. The review comments will be geared towards aligning the design and design narrative with the Design Narrative and/or updating the Design Narrative with decisions approved by VA during the Design Development Phase.
2. The CxA will prepare the Preliminary Commissioning Plan to provide an initial framework for commissioning activities that will follow. This Preliminary Commissioning Plan will be aligned with the project scope and schedule. It will be reviewed by the PM, FMD, CPM and other interested parties.
3. The CxA will also prepare preliminary commissioning specifications to be included in the project manual. The preliminary specifications will include Section 01 91 00 – GENERAL COMMISSIONING REQUIREMENTS as well as language to be included in other Division 7, Division 21, Division 22, Division 23, Division 26, Division 27, Division 28, and Division 31 specification sections. The Design Team will review the preliminary commissioning specifications and provide written comments to the CxA. The CxA will revise the Preliminary Commissioning Specification and re-submit to the Design Team.
4. A review conference is held with the Design Team, PM, FMD, CxA and CPM to coordinate review comments and responses.
5. The CxA, CPM, Design Team, PM, and FMD will hold a meeting to review mechanical, electrical and plumbing system selections and to develop the preliminary control system Sequences of Operations for the project. Based on the results of this meeting, the Design Team will use these concepts as the basis for designing the final control system specifications and Sequences of Operations to be included in the construction documents. The Design Team will notify and coordinate and changes with the other parties involved in the control system.
6. The CxA will update the Commissioning Plan to incorporate any changes resulting from the Design Development submission and review comments.
7. The CxA will also prepare the Commissioning Specifications Coordination Matrix. This document is based on the outline specifications provided by the Design Team. It provides recommended wording to be included in the technical specifications sections to identify commissioning, O&M manual and training requirements for the CPM and the installing contractors.
8. The Design Narrative will be updated by the CxA to incorporate decisions approved during the Design Development phase.

C. Construction Document Phase: The goals of the commissioning tasks in the Construction Document Phase of the project include the following:

1. The Design Team will prepare final construction documents that will be used to construct the facility. A progress set of drawings and specifications will be issued for review at approximately the 50% CD stage. The CxA, PM, CPM, and FMD will review the progress set to verify that the design is proceeding in accordance with the Design Narrative.
2. The CxA will prepare a final, detailed list of systems and equipment to be commissioned.
3. The CxA will prepare preliminary Pre-Functional Checklists and Systems Functional Performance Test procedures for each type of system to be commissioned. These will be published in the Preliminary Commissioning Plan to be included as an informational appendix to Specification Section 01 91 00 – GENERAL COMMISSIONING REQUIREMENTS that will be issued for bid.
4. A review conference will be conducted to coordinate review comments and provide direction for adjustments in the design prior to issuing the final construction documents.
5. The CxA will update the Design Narrative to reflect changes approved during the review conference.
6. The Design Team will issue final Construction Documents, including drawings, and specifications. These will be reviewed by the CxA, PM, VAMC User, and FMD. The CPM will also review the final construction documents and prepare the final estimates of construction costs.
- 7.

Commissioning Team Roles and Responsibilities				
Project Phase	Cx Task	Description	Team Member	Responsibility
Design	Review Owner's Project Requirements	Review VAMC Design Criteria and Owner's Project Requirement document prior to submission to LEED Facilitator.	VA PM	<ul style="list-style-type: none"> Prepare and issue Owner's Project Requirements based on specific requirements, Ed Specs and District Design Criteria.

Commissioning Team Roles and Responsibilities				
Project Phase	Cx Task	Description	Team Member	Responsibility
			CxA	<ul style="list-style-type: none"> Review and comment on Owner's Project Requirements. Submit comments to the PM and QA.
			Design Team	<ul style="list-style-type: none"> Review for understanding project requirements.
			CPM	<ul style="list-style-type: none"> None.
			DDC	<ul style="list-style-type: none"> None
			TAB	<ul style="list-style-type: none"> None
Design	Review Design Narrative	Review the Design Narrative Document	VA PM	<ul style="list-style-type: none"> Receive and distribute Basis of Design documents to CPM, CxA, and other VAMC agencies as necessary.
			CxA	<ul style="list-style-type: none"> Review Design Narrative document. Provide comment log to PM and Design Team.
			Design Team	<ul style="list-style-type: none"> Prepare Phase 1 (Schematic Design) and Design Narrative to describe design approach.
			CPM	<ul style="list-style-type: none"> None.
			DDC	<ul style="list-style-type: none"> None

Commissioning Team Roles and Responsibilities				
Project Phase	Cx Task	Description	Team Member	Responsibility
			TAB	<ul style="list-style-type: none"> None
Design	Review Schematic design	Review Schematic Design for familiarization, general conformance with Owner's Project Requirements, Basis of Design and VAMC Design Criteria.	VA PM	<ul style="list-style-type: none"> Receive and distribute Schematic Design package to Peer Reviewer, CxA, and other VAMC agencies as necessary.
			CxA	<ul style="list-style-type: none"> Review Schematic Design Provide comment log to PM and QA.
			Design Team	<ul style="list-style-type: none"> Prepare Schematic Design. Provide responses to CxA review comments. Incorporate changes into design as directed by PM.
			CPM	<ul style="list-style-type: none"> None.
			DDC	<ul style="list-style-type: none"> None
			TAB	<ul style="list-style-type: none"> None
Design	Design Development design	Review Design Development design for familiarization, general conformance with Owner's Project Requirements, Design	VA PM	<ul style="list-style-type: none"> Receive and distribute Design Development package to Peer Reviewer, CxA, DDC and other VAMC agencies as necessary.

Commissioning Team Roles and Responsibilities				
Project Phase	Cx Task	Description	Team Member	Responsibility
		Narrative, and VA Design Criteria.	CxA	<ul style="list-style-type: none"> Review Design Development drawings and specs. Update Design Narrative Provide comment log to PM and QA.
			Design Team	<ul style="list-style-type: none"> Prepare Design Development drawings and specs. Provide responses to CxA review comments. Incorporate changes into design as directed by PM.
			CPM	<ul style="list-style-type: none"> None.
			DDC	<ul style="list-style-type: none"> None.
			TAB	<ul style="list-style-type: none"> None
Design	Commissioning Specifications	Prepare Commissioning Specification "Section 01 91 00 – General Commissioning Requirements" to be included in project manual. Prepare Commissioning Specification for Division 21 – Fire Protection, Division 22 – Plumbing, Division 23 – HVAC, Division	VA PM	<ul style="list-style-type: none"> Review, comment and approve Cx specifications as part of project manual review.
			CxA	<ul style="list-style-type: none"> Prepare Cx Specification Section 01 91 13. Prepare systems commissioning specifications.
			Design Team	<ul style="list-style-type: none"> Incorporate commissioning specifications into Project Manual.

Commissioning Team Roles and Responsibilities				
Project Phase	Cx Task	Description	Team Member	Responsibility
		26 – Electrical, to provide detailed commissioning, operations & maintenance and training requirements for individual technical specification sections.	CPM	<ul style="list-style-type: none"> None.
			DDC	<ul style="list-style-type: none"> None.
			TAB	<ul style="list-style-type: none"> None.
Design	Design Phase Controls Meeting	Meet with Owner, Architect, and Mechanical/Electrical Design Engineer to review Building Control Systems and Sequences of Operations. The focus of the meeting will be to obtain understanding of the interactions between systems and the control system in various operating modes.	VA PM	<ul style="list-style-type: none"> Schedule, facilitate and attend meeting.
			CxA	<ul style="list-style-type: none"> Attend meeting to discuss control sequences and strategies.
			Design Team	<ul style="list-style-type: none"> Attend meeting to discuss control sequences and strategies.
			CPM	<ul style="list-style-type: none"> None
			DDC	<ul style="list-style-type: none"> None.
			TAB	<ul style="list-style-type: none"> None
Design	Preliminary Commissioning Plan	Prepare Preliminary Commissioning Plan that describes the Commissioning Process, Commissioning Team with specific Roles	VA PM	<ul style="list-style-type: none"> Review Cx Plan Provide comments to CxA.
			CxA	<ul style="list-style-type: none"> Prepare Cx Plan Submit to PM and QA

Commissioning Team Roles and Responsibilities				
Project Phase	Cx Task	Description	Team Member	Responsibility
		and Responsibilities. The Commissioning Plan will include description of systems to be commissioned.	Design Team	<ul style="list-style-type: none"> Review Cx Plan relative to Design Team roles and responsibilities.
			CPM	<ul style="list-style-type: none"> None.
			DDC	<ul style="list-style-type: none"> None.
			TAB	<ul style="list-style-type: none"> None.
Design	Focused Construction Document Review (Progress Set)	Perform a focused review of a Construction Document progress submission (recommend review prior to the 50% CD stage).	VAMC PM	<ul style="list-style-type: none"> Receive and distribute Progress Set drawings and specs to QA, DDC and other VAMC agencies as necessary.
			CxA	<ul style="list-style-type: none"> Review Progress Set drawings and specs. Update Design Narrative Provide comment log to PM and QA.
			Design Team	<ul style="list-style-type: none"> Prepare Progress Set drawings and specs. Provide responses to CxA review comments. Incorporate changes into design as directed by PM. Distribute Progress Set drawings and specs to CxA as necessary
			CPM	<ul style="list-style-type: none"> None

Commissioning Team Roles and Responsibilities				
Project Phase	Cx Task	Description	Team Member	Responsibility
			DDC	<ul style="list-style-type: none"> None.
			TAB	<ul style="list-style-type: none"> None
Design	Focused Construction Document Review	Perform a focused review of the final Construction Document submission. This review will include a back check of commissioning comments provided during previous reviews.	VA PM	<ul style="list-style-type: none"> Receive and distribute Construction Documents package to QA, CxA, DDC and other VAMC agencies as necessary.
			CxA	<ul style="list-style-type: none"> Review Construction Document drawings and specs. Update Design Narrative Provide comment log to PM and QA.
			Design Team	<ul style="list-style-type: none"> Prepare Construction Documents drawings and specs. Provide responses to CxA review comments.
			CPM	<ul style="list-style-type: none"> None.
			DDC	<ul style="list-style-type: none"> None
			TAB	<ul style="list-style-type: none"> None.
Design	Design Phase Meetings	Participate Design Phase meetings.	VA PM	<ul style="list-style-type: none"> Schedule, facilitate and attend meetings

Commissioning Team Roles and Responsibilities				
Project Phase	Cx Task	Description	Team Member	Responsibility
			CxA	<ul style="list-style-type: none"> Attend approximately selected meetings to discuss Commissioning Issues.
			Design Team	<ul style="list-style-type: none"> Conduct meetings Provide meeting minutes to PM, CxA and others as directed by PM.
			CPM	<ul style="list-style-type: none"> None
			DDC	<ul style="list-style-type: none"> None.
			TAB	<ul style="list-style-type: none"> None.
Design	Focused Design Review Meetings	Attend Design Review meetings with to review the design and specific commissioning design review comments.	VA PM	<ul style="list-style-type: none"> Schedule, facilitate and attend meetings.
			CxA	<ul style="list-style-type: none"> Attend meetings to discuss commissioning review comments.
			Design Team	<ul style="list-style-type: none"> Attend meetings to discuss design and to respond to commissioning and DDC comments.
			CPM	<ul style="list-style-type: none"> None.
			DDC	<ul style="list-style-type: none"> None.
			TAB	<ul style="list-style-type: none"> None.

X. Commissioning Schedule

A. Schedule is provided in Owner's Project Requirements

