American University
Master Commissioning Plan
Revision 2.0

1/25/2022

American University
Master Commissioning Plan
Revision 2.0

Table of Contents

Section Page

1 Introduction 2
2 Commissioning Team Members 3
3 Systems to be Commissioned 4
4 Commissioning Process Matrix 5
5 Commissioning Process Flowchart 7
6 Commissioning Activities Narratives 8

3 Systems to be Commissioned

Building Automation

Sequence of Control HVAC, Electrical & Plumbing Systems
Graphics Integration HVAC, Electrical & Plumbing Systems
Intersystem Functional Testing
Alarm verification

Mechanical Systems

HVAC System and Building Campus Loop CHW/HW Connections
Indoor Air Quality Monitoring System
Energy Management System
Domestic Hot Water System

Life Safety Systems

Fire Suppression System
Fire Alarm System
Smoke Management Systems

Electrical Systems

Normal Power Systems
Emergency Electrical Power
Critical Power
Lighting & Occupancy Controls
Building A/V & Communications Systems

Security Systems

Card Access
Cameras

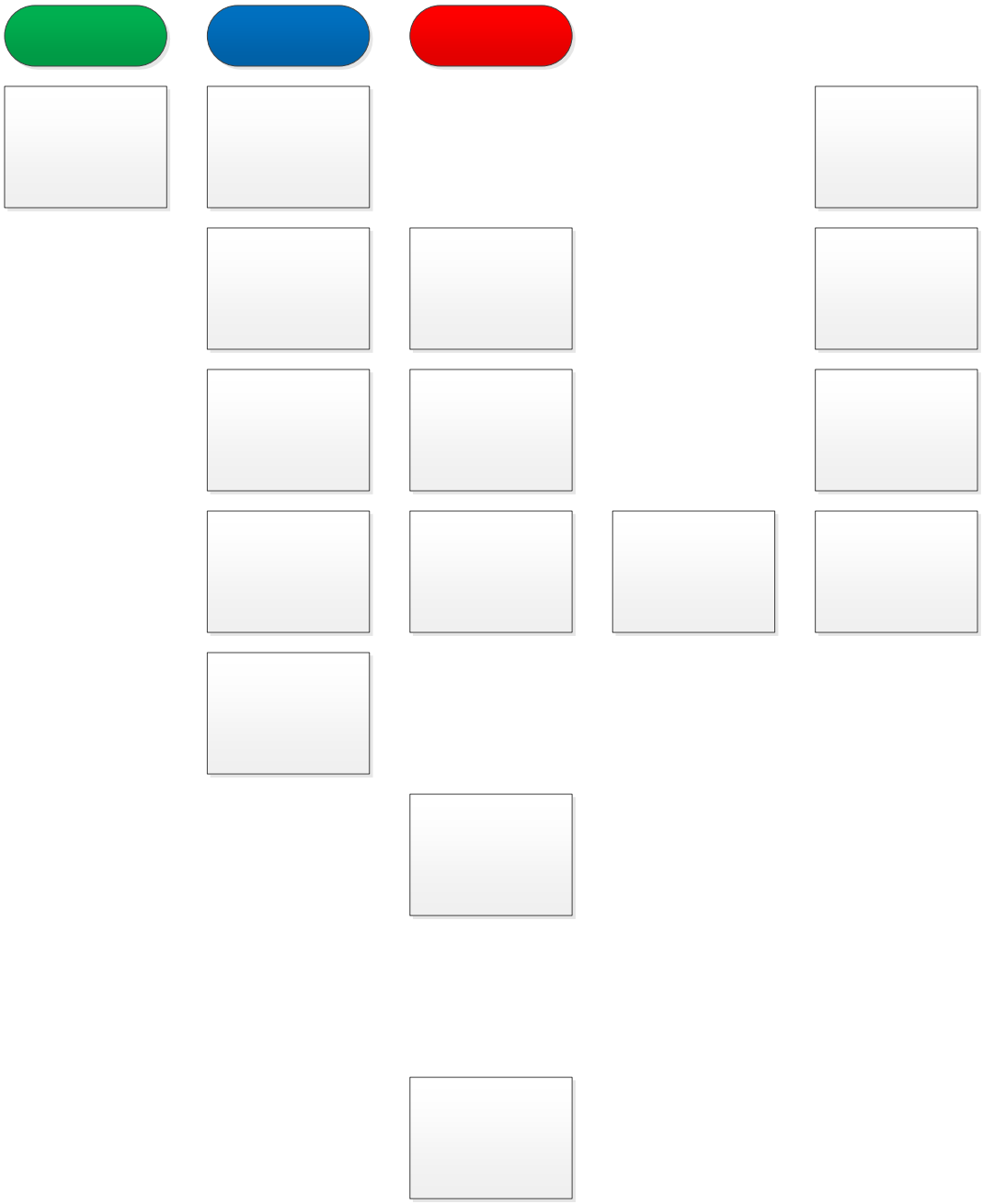
Specialty Systems

Classroom/Conference Room Audio-Visual, Lighting & Communications
Laboratory Support Systems

4 Commissioning Process Matrix

The following matrix tabulates the major commissioning activities; when they occur during the project life cycle; and the commissioning team member roles and responsibilities for each

5 Commissioning Process Flowchart



6 Commissioning Activities Narratives

Planning Phase Activities

2ZQHU¶V 3URMHFW 5HTXLUHPHQWV 235 'RFXPHQW

operational requirements for the commissioned systems. These performance requirements will be the acceptance criteria against which the systems will be judged. They will include parameters such as temperatures, flows, pressures, moisture content, light fixture types, light levels, warranty information requirements, central system availability/tie-in capability, electrical spare capacity requirements, building automation system requirements, etc.

For LEED certification purposes, the OPR must include the following sections:

x Owner and User Requirerererererererererererererererel

The Contractor will send copies of the selected submittals to the Facilities Management Commissioning Authority and to the Commissioning Manager simultaneous with issuing them to the Design Team for review. The Facilities Management and AU Other Departments reviewers will submit their comments to the Commissioning Manager who will consolidate all comments and forward them to the Design Team. The Design team will incorporate the commissioning comments, at their discretion, into their formal submittal review responses to the Contractor. The Design Team will provide written responses to each submittal review comment to the Commissioning Manager.

Commissioning submittal review comments will focus on the same areas as the commissioning design reviews (e.g., compliance with the OPR, clarity of the design, integration coordination, accessibility and maintainability, O&M training and documentation requirements, and the ability to test and validate system operation). Refer to Section 7 for the Document Review Template.

The Commissioning Manager and Facilities Management Commissioning Authority will be given access to all approved submittals after processing by the Design Team.

Operations & Maintenance (O&M) Manual Reviews

Early submission of the O&M manuals will help ensure they are complete and approved prior to the start of the AU Facilities Management staff training. The manuals will serve a critical part of the training program.

The Commissioning Manager will identify O&M manuals associated with systems to be commissioned that need to be reviewed by the Commissioning Manager and Facilities Management staff. The Facilities Management reviewers will submit their comments to the Commissioning Manager who will consolidate all comments and forward them to the Contractors.

Training Agenda Reviews

All training session(s) will have a Training Agenda. The Training Agenda requires specific detailed information about the content of its respective session. The agenda will be completed by the Contractor responsible for the training session and will be reviewed by the Facilities Management Commissioning Manager and the Project Team. The Facilities Management reviewers will submit their comments to the Commissioning Manager who will consolidate all comments and forward them to the Contractors.

During delivery of the training sessions, each approved Training Agenda form will be used

acceptance of the training

The Facilities Management reviewers will submit their comments to the Commissioning Manager who will consolidate all comments and forward them to the Design Team. The Design team will address these comments, incorporating them as appropriate into their formal TAB report review response to the Contractor. The Design Team will provide written responses to each TAB report review comment to the Commissioning Manager.

Functional Performance Test Plans

The Commissioning Agent will prepare and distribute Functional Performance Test Plans prior to the start of Functional Performance Testing. This will allow the Construction Team to review the proposed testing schedule; to understand which test procedures will be conducted during a specific testing period; to schedule the appropriate people to be in attendance for each test; and to verify that the necessary equipment is available when testing begins.

1. Requirements
2. Basis of Design
3. Integrated Building Systems OperatingreW*nBT/F6 12 Tf1 0 0 1 98.784 660.22 Tm0 g0 G[ )]TJETQq2eg