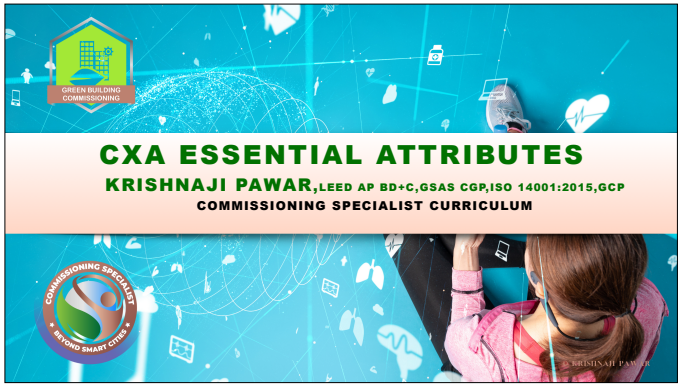
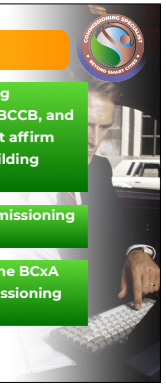

BEYOND
SMART CITIES
CERTIFIED COMMISSIONING AUTHORITY
CXA EXAM PREP
KRISHNAJI PAWAR, LEED AP BD+C,GSAS CGP,ISO 14001:2015,GCP
COMMISSIONING SPECIALIST CURRICULUM
COMMISSIONING SPECIALIST
BEYOND SMART CITIES


GREEN BUILDING COMMISSIONING
CXA ESSENTIAL ATTRIBUTES
KRISHNAJI PAWAR, LEED AP BD+C,GSAS CGP,ISO 14001:2015,GCP
COMMISSIONING SPECIALIST CURRICULUM
COMMISSIONING SPECIALIST
BEYOND SMART CITIES


LEARNING OBJECTIVES
Essential Attributes of Commissioning

ESSENTIAL ATTRIBUTES OF CXA

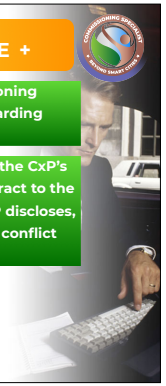


Below are the Essential Attributes of the Building Commissioning Association (BCxA). These Attributes have been adopted by the BCCB, and as a condition of candidacy and certification as an CCP you must affirm your willingness to abide by the BCxA Essential Attributes of Building Commissioning.

The BCxA believes that diverse and creative approaches to commissioning benefit the discipline of building commissioning and its clients.

The attributes described herein are called “essential”, because the BCxA believes that they are, in fact, essential to every effective commissioning process.

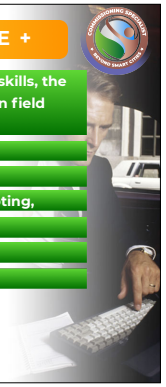
ESSENTIAL ATTRIBUTES OF BCXA ARE +



1.The Commissioning Provider (CxP) is in charge of the commissioning process and makes the final recommendations to the owner regarding functional performance of the commissioned building systems.

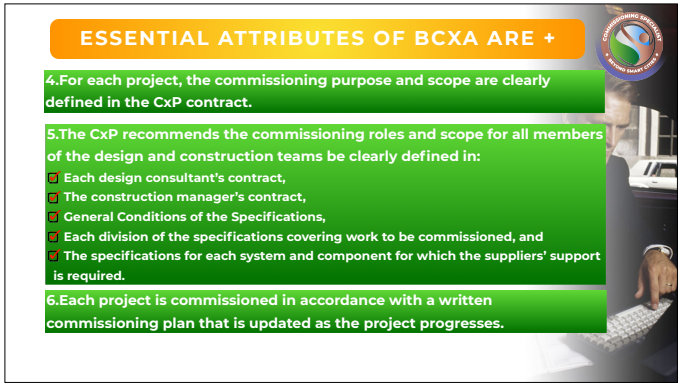
2.The CxP is an objective, independent advocate of the Owner. If the CxP’s firm has other project responsibilities, or is not under direct contract to the Owner, a conflict of interest exists. Wherever this occurs, the CxP discloses, in writing, the nature of the conflict and the means by which the conflict shall be managed.

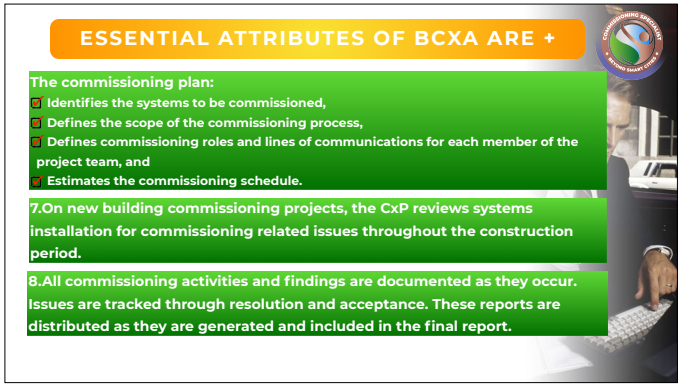
ESSENTIAL ATTRIBUTES OF BCXA ARE +

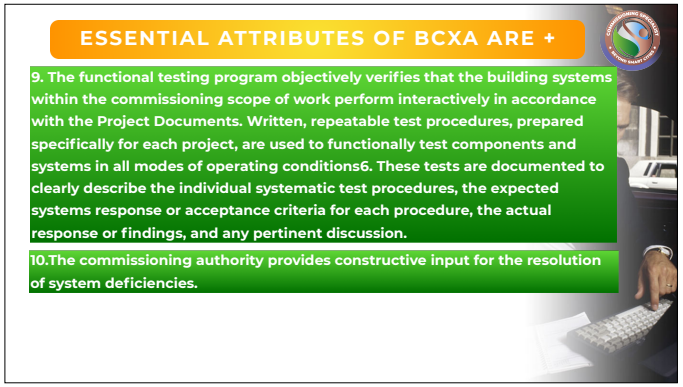


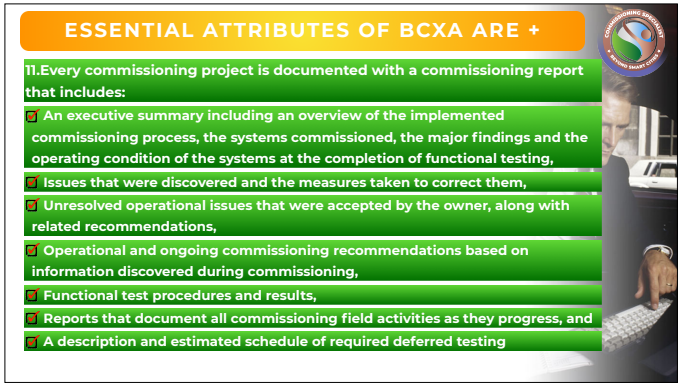
3.In addition to having good written and verbal communication skills, the CxP has current engineering knowledge, and extensive hands-on field experience regarding:

- Building systems commissioning,
- Technical knowledge of building systems,
- Building systems start-up, balancing, testing and troubleshooting,
- Operation and maintenance procedures,
- The building design and construction processes,
- Automated control systems and control logic.


ESSENTIAL ATTRIBUTES OF BCXA ARE +
4.For each project, the commissioning purpose and scope are clearly defined in the CxP contract.
5.The CxP recommends the commissioning roles and scope for all members of the design and construction teams be clearly defined in:
Each design consultant's contract,
The construction manager's contract,
General Conditions of the Specifications,
Each division of the specifications covering work to be commissioned, and
The specifications for each system and component for which the suppliers' support is required.
6.Each project is commissioned in accordance with a written commissioning plan that is updated as the project progresses.


ESSENTIAL ATTRIBUTES OF BCXA ARE +
The commissioning plan:
Identifies the systems to be commissioned,
Defines the scope of the commissioning process,
Defines commissioning roles and lines of communications for each member of the project team, and
Estimates the commissioning schedule.
7.On new building commissioning projects, the CxP reviews systems installation for commissioning related issues throughout the construction period.
8.All commissioning activities and findings are documented as they occur. Issues are tracked through resolution and acceptance. These reports are distributed as they are generated and included in the final report.


ESSENTIAL ATTRIBUTES OF BCXA ARE +
9. The functional testing program objectively verifies that the building systems within the commissioning scope of work perform interactively in accordance with the Project Documents. Written, repeatable test procedures, prepared specifically for each project, are used to functionally test components and systems in all modes of operating conditions6. These tests are documented to clearly describe the individual systematic test procedures, the expected systems response or acceptance criteria for each procedure, the actual response or findings, and any pertinent discussion.
10.The commissioning authority provides constructive input for the resolution of system deficiencies.


ESSENTIAL ATTRIBUTES OF BCXA ARE +
11.Every commissioning project is documented with a commissioning report that includes:
An executive summary including an overview of the implemented commissioning process, the systems commissioned, the major findings and the operating condition of the systems at the completion of functional testing,
Issues that were discovered and the measures taken to correct them,
Unresolved operational issues that were accepted by the owner, along with related recommendations,
Operational and ongoing commissioning recommendations based on information discovered during commissioning,
Functional test procedures and results,
Reports that document all commissioning field activities as they progress, and
A description and estimated schedule of required deferred testing


BEYOND
SMART CITIES
THANK
YOU
COMMISSIONING SPECIALIST
BEYOND SMART CITIES
LEARN.BEYONDSMARTCITIES.IN