



**BSR/ASHRAE/IES Addendum e
to ANSI/ASHRAE/IES Standard 202-2018**

Public Review Draft

Proposed Addendum e to Standard 202-2018, Commissioning Process for New Buildings and New Systems

**First Public Review (September 2023)
(Draft shows Proposed Changes to Current Standard)**

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(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

FOREWORD

This proposed addendum clarifies the distinction between a preliminary Cx Report and a final Cx Report. This distinction did not exist originally, but practice has shown that waiting until the end of the warranty phase to provide a Cx Report is too long to be feasible on most projects. The owner needs to be able to pay retention to contractors, and consultants need to file green building rating system credits with rating systems providers, and this is typically done at substantial completion. For this reason, the standard now recognizes a preliminary report, to be completed at substantial completion, and a final report to be issued at the end of warranty.

The addendum also distinguishes Cx Progress reports as a separate set of documents; these do not have to be combined to provide the final Cx report, they can be entirely separate documents.

Lastly, while Issues Log Reports and Cx Progress Reports can be issued together (for example, after a jobwalk), this is not necessarily the case. Cx Progress Reports can also be issued without updates to the Issues Log, and the Issues Log can be updated without creating a Cx Progress Report. The addendum clarifies this distinction as well.

Note: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.

Addendum e to Standard 202-2018

Modify Section 3 as follows. The remainder of Section 6 remains unchanged.

3. DEFINITIONS

[...]

final Cx Report: a document that records the activities and results of the Cx and includes an executive project summary, lessons learned, confirmation of receipt of all major required deliverables, and resolution of all major issues to the satisfaction of the Owner, no later than the expiration of the warranty period, that is developed from the final Cx Plan with all of its attached appendices.

[...]

Preliminary Cx Report: a document that records the activities and results of the Cx to allow the Owner to make a decision on whether to accept a project as substantially complete and to provide documentation to the authority having jurisdiction (AHJ) to obtain a Temporary Certificate of Occupancy (TCO) or Certificate of Occupancy (CO).

[...]

Modify Section 4 as follows. The remainder of Section 4 remains unchanged.

4. UTILIZATION

[...]

4.2.2 Cx Activities and Deliverables

Cx Progress Reports

Activity	Deliverable
Initiate Cx	Roles and Responsibilities
↓	↓
Decide Project Requirements	OPR
↓	↓
Develop Cx Plan	Cx Plan
↓	↓
Design Approach to Requirements	BoD
↓	↓
Set Contractor Cx Requirements	Cx Specifications
↓	↓
Review Design to Requirements	Design Review Report
↓	↓
Review Submittals	Submittal Review Report
↓	↓
Observe and Test	Construction Checklists and Reports
↓	↓
Resolve Issues	Issues and Resolution Log
↓	↓
Assemble Systems Manual	Systems Manual
↓	↓
Conduct Training	Training Plans and Records
↓	↓
<u>Assemble Preliminary Cx Report</u>	<u>Preliminary Cx Report</u>
↓	↓
Postoccupancy Operation <u>and Closeout Phase</u>	End of Warranty Cx Progress Report
↓	↓
Assemble <u>Final Cx Progress Report</u>	<u>Final Cx Progress Report</u>

[...]

Modify Section 5 as follows. The remainder of Section 5 remains unchanged.

5. INITIATING THE COMMISSIONING PROCESS

[...]

5.2.10 Issues and Resolution Log and Cx Progress Reports. The Owner shall require the development and use of ~~Cx Progress Reports~~ and issues and resolution logs as required in the OPR and Section 13 of this standard. The Owner shall review Cx issues and resolution logs ~~and Cx Progress Reports~~, participate in collaborative team resolution, and provide direction when needed.

5.2.11 Cx Progress Reports. The Owner shall require the development and use of Cx Progress Reports as required in the OPR and Section 13 of this standard. The Owner shall review the progress reports and provide direction when needed.

[...]

Renumber Sections 5.2.11 through 5.2.14 accordingly.

[...]

5.2.16 ~~5.2.15~~ Preliminary Cx Progress Report and Final Cx Report. The Owner shall require, by agreement, the development and delivery of a Preliminary Cx Progress Report and a final Cx Report, and that deliverables be provided in accordance with Section 17 of this standard. The Owner shall ensure that specific entities are designated for the development and assembly of these reports. ~~the Cx Progress Reports.~~

Modify Section 6 as follows. The remainder of Section 6 remains unchanged.

6. OWNER'S PROJECT REQUIREMENTS

[...]

6.2.3 The OPR document shall address the following for the commissioned systems:

[...]

- i. Project documentation, Cx Progress Reports, Preliminary Cx Report, Final Cx Report, Systems Manual requirements and formats

[...]

- ~~r. Cx Progress Report formats and distributed intervals~~

[...]

Modify Section 13 as follows. The remainder of Section 13 remains unchanged.

13. ISSUES AND RESOLUTIONS DOCUMENTATION

13.1 Introduction. Issues identified during the Cx Process shall be documented and any open or continuing items listed in an issues and resolution log. ~~and Cx Progress Reports.~~

[...]

13.2.4 The issues and resolution log ~~and Cx Progress Reports~~ shall be distributed to the Project Team at intervals prescribed in the Cx Plan.

[...]

Modify Section 14 as follows. The remainder of Section 14 remains unchanged.

14. SYSTEMS MANUAL

[...]

14.2.3 The following shall be included in the Systems Manual:
Section 1—Executive Summary

1.1 Copy of Preliminary Cx Report

1.2 Copy of Final Cx Report

[...]

Section 6—Cx Progress Reports

[...]

~~6.7 Preliminary Cx Report prior to issue of certificate of occupancy~~

~~6.8 Final Cx Report at the completion of the Cx~~

[...]

Modify Section 17 as follows. The remainder of Section 17 remains unchanged.

17. COMMISSIONING REPORTS

17.1 Introduction. A Preliminary Cx Progress Report shall be provided to summarize the Cx around the time of substantial completion and initial occupancy. This report shall assist the Owner in deciding whether the commissioned equipment and systems are ready for occupancy. The report may also be required to allow the authority having jurisdiction (AHJ) to determine whether a Temporary Certificate of Occupancy (TCO) or Certificate of Occupancy (CO) can be issued. A final Cx Report shall be issued on completion of the closeout phase, at the end of warranty. This report shall detail activities during the closeout phase and list issues closed and deliverables received during this period, and the building operation for delivery to the building Owner and other required recipients.

[...]

17.2.2 The final Cx Report shall include the final Cx Plan and the results of the implementation of that plan. The report shall include an executive summary describing the Cx and identifying the systems and assemblies commissioned. The report shall identify the location of the final OPR and Basis of Design (BoD) documents or contain a copy if these documents are not otherwise available. ~~The location of the project record drawings shall be identified.~~

17.2.3 For electronic document delivery, locations of documents may be identified by hyperlinks to cloud-based documents as agreed to by the Owner.

17.3 ~~The final Preliminary Cx Report shall include~~ a copy or the location of the following:

- a. Executive summary
- b. ~~Copy of the final~~ Final Cx Plans
- c. Ongoing Cx Plan
- d. ~~Copy of design~~ Design and submittals review reports
- e. Completed copy of the approved supplier, contractor, and CxP evaluations, and Cx start-up and test forms, including those utilized during the occupancy and operations activity
- f. Record drawings of commissioned systems
- g. Warranties for commissioned systems
- h. ~~Copy of all~~ All Cx Progress Reports
- i. ~~Copy of all~~ All issues and resolution logs, including the descriptions of the issues and the measures taken to correct them, and a discussion of systems or assemblies that do not perform in accordance with the OPR
- j. For all incomplete issues, delayed or seasonal tests including a resolution plan approved by the Owner identifying who is responsible for resolution
- k. A listing of incomplete deliverables and open issues, for resolution during the closeout phase.

17.4 The Final Cx Report shall include a copy or the location of the following:

- a. All of the elements of the Preliminary Cx Report

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- b. Update to the executive summary, including recommendations for acceptance of the project by the CxP, and lessons learned for future projects
- c. Description of issues resolved during the closeout phase
- d. Description of deliverables received during the closeout phase
- e. Remaining issues which could not be resolved during the closeout phase. Recommendations for addressing these issues in ongoing Cx.

17.517.4 Acceptance

17.5.147.4.1 The CxP shall submit the Pre-final and final Cx Report to the Owner and others as required by the OPR and jurisdictional requirements for review and acceptance.