

### 1. Overview

The following document outlines the close out standards for construction projects at The Ohio State University, and is applicable to all FDC managed projects.

This close out standard is referenced in Specification Section 01 77 19 – “Close Out Requirements”

A/E, CM-A/CM-R, DB, and Contractors (PO) are responsible for managing the close out delivery as described in this document.

### 2. Deliverable Submission

All close out deliverables shall be submitted via eBuilder

### 3. Instructions: Electronic Cloud-Based Close Out Delivery Process

- **Start of Construction:** The Submittal and Pre-closeout Process (SPCP) shall be initiated by the OSU Project Manager or the Close Out Coordinator to confirm settings and protocols for the eBuilder submittal module.
- *(Applicable only to projects with a total budget of \$250,000 or greater)* **1-4 Months prior to Certificate of Occupancy (Partial or Permanent/Final) or Substantial Completion:** The Submittal and Pre-closeout Process (SPCP) shall be initiated by the OSU Close Out Coordinator to schedule the Pre-Closeout meeting.
  - OSU's Close Out Coordinator shall continue to meet with the project team until all close out deliverables have been submitted to ensure the workflow and the deliverables conform to OSU's standards
- **Close Out Completion:** Complete and submit all close out deliverables within the number of days based on the Close Out Deliverable Due Date Table below or other period as mutually agreed by the Owner

| Close Out Deliverable Due Date Table       |   |  |  |
|--|---|--|--|
| Project Budget                             | Under \$250,000   | \$250,000 - 3.9M   | \$4M Or Over   |
| Deliverable Final Due Date (Calendar Days) | 60 days after Certificate of Occupancy or end of construction | 150 days after Certificate of Occupancy (Partial or Permanent/Final) or Substantial Completion | 180 days after Certificate of Occupancy (Partial or Permanent/Final) or Substantial Completion |

### 4. Deliverable Milestones

| Deliverables for projects with budget under \$250,000 |  |   |
|---|--|---|
|   | Milestone  | Checklist   |
| 1   | Close Out Deliverables at Deliverable Final Due Date (refer to table in Section 3 Instructions: Electronic Cloud-Based Close Out Delivery Process) | <input type="checkbox"/> All close out deliverables |

| Deliverables for projects with a total budget of \$250,000 or greater |  |  |
|---|--|--|
|   | Milestone  | Checklist  |
| 1.  | Interim Close Out Deliverables (Typically 1-4 Months prior to Certificate of Occupancy (Partial or Permanent/Final) or Substantial Completion) | <input type="checkbox"/> BIM deliverables <i>(per section 4.3.3 Design and Construct Final Turnover of the BIM Project Delivery Standards (for BIM projects only)</i><br><input type="checkbox"/> Space Data <ul style="list-style-type: none"> <li>▪ Room schedule</li> <li>▪ Overall Floor Plan</li> <li>▪ Site and Landscape Plan</li> </ul> <input type="checkbox"/> Product Data and O&Ms |

|    |  |  |
|----|--|--|
| 2. | Close Out Deliverables at Certificate of Occupancy (Partial or Permanent/Final) or at Substantial Completion                     | <input type="checkbox"/> BIM deliverables<br><i>(per section 4.3.3 Design and Construct Final Turnover of the BIM Project Delivery Standards (for BIM projects only))</i><br><input type="checkbox"/> Certificate of Substantial Completion<br><input type="checkbox"/> For Wexner Medical Center Projects: <ul style="list-style-type: none"> <li>▪ Testing and Balancing (TAB) Reports</li> <li>▪ Water Purification Reports / Piping Purification Inspection</li> <li>▪ Medical Gas Testing Reports</li> <li>▪ Special Testing Reports</li> </ul> |
| 3. | Close Out Deliverables at Deliverable Final Due Date (Section 3 Instructions: Electronic Cloud-Based Close Out Delivery Process) | <input type="checkbox"/> All remaining BIM deliverables<br><i>(per section 4.3.3 Design and Construct Final Turnover of the BIM PDS (for BIM projects only))</i><br><input type="checkbox"/> All remaining close out deliverables  |

**5. Schedule of Values (SOV)** *(Applicable only to projects with a total budget of \$250,000 or greater)*

The GC/DB/CM shall appropriately identify the following close out line items on the SOV. The total of the close out line items shall be based on the Schedule of Value Percent Table at the end of this section, or as negotiated with the University Project Manager. The costs for close out line items below shall be broken out of the GC/DB/CM fee.

| Account Code           | Description  | Current SOV | Retainage % | Phase* | Location* | CSI Division                              | CSI Detail (L2)  | Line Type |
|------------------------|--|-------------|-------------|--------|-----------|---|--|-----------|
| 02-0210 - Construction | Interim Close Out Items – Material   | 0.00        | 0           |        |           | 99 00 00 – Professional Service Agreement | 01 77 20 - Interim Close Out Items                       | Material  |
| 02-0210 - Construction | Close Out Items at Certificate of Occupancy or Substantial Completion - Material | 0.00        | 0           |        |           | 99 00 00 – Professional Service Agreement | 01 77 30 - Close Out Items at Certificate of Occupancy   | Material  |
| 02-0210 - Construction | Close Out Items at Deliverable Final Due Date - Material                         | 0.00        | 0           |        |           | 99 00 00 – Professional Service Agreement | 01 77 40 – Close Out Items at Deliverable Final Due Date | Material  |

**Total of Close Out items = Project Cost Percentage from the Schedule of Value Percent Table**

- Items listed in GENERAL CONDITIONS ARTICLE 9 - COMPENSATION AND PAYMENT (Section 9.3.2.8 (General Contracting) 9.2.10.2.8 (CM at Risk) 9.2.9.2.8 (Design-Build), such as Punch List Work, Project Record Document Submittals, delivery of attic stock, as well as specified demonstrations and training should be grouped into the following SOV close out line items as follows:
  - Interim Close Out Items – Material
    - Start of Project Record Document Submittals
    - Start of specified demonstrations and training
  - Close Out Items at Certificate of Occupancy or Substantial Completion– Material
    - Start of Punch List Work
  - Close Out Items at Deliverable Final Due Date – Material
    - Completion of Punch List Work
    - Completion of Project Record Document Submittals
    - Delivery of attic stock
    - Completion of specified demonstrations and training

\*For multi-phase or multi-building projects, the close out line items shall be subdivided per Certificate of Occupancy (Partial or Permanent/Final)



| Schedule of Value Percent Table |                  |          |            |             |
|---------------------------------|------------------|----------|------------|-------------|
| Total Project Cost              | \$250,000 - 3.9M | \$4M-20M | \$21M-100M | Over \$100M |
| Percent of Contract Value       | 5%               | 4%       | 3%         | 1-2%        |

**6. File Naming Convention & Format: Overall Requirements for Deliverables**

- All PDFs submitted to the university, regardless of type, shall be
  - The most recent version of Adobe Acrobat
  - Unlocked and not password protected
- All AutoCAD \*.DWG files shall be
  - Currently available file format version or prior
  - All externally referenced dwg or other vector format drawing files, blocks shall be bound to their respective drawings. If copyrights prohibit this, such reference files shall not be used on the project.
  - Use standard fonts included with AutoCAD
  - Each title block must be intact
  - No drawing information outside the title block borders
  - Shall strictly adhere to the current published AIA guidelines for layering standards.

**6.1 File Naming Convention & Format**

Unless specified otherwise, deliverables do not have standardized OSU naming convention.

**01 Product Data/O&Ms/ Warranties/ Shop Drawings/Startup Testing & Reports**

Operation and Maintenance Manuals:

- Shall be delivered in searchable Adobe Acrobat \*.PDF format

The items 02-07 shall be submitted in PDF format

**02 Commissioning**

**03 Balance Reports**

**04 Permits and Inspections**

**05 Third Party Agreements** *(for OSU Project Managers only)*

**06 Completion Certificate** *(applicable only to projects with a total budget of \$250,000 or greater)*

**07 Project Documentations**

Completed Punch List, Tangible Property List, etc.

**08 Record Drawings & Specifications**

Refer to the Building Design Standards (BDS) Section 00 00 40 & 00 00 41 for requirements on bookmarking and document preparation.

Record Drawings

- Note on each drawing file "RECORD DRAWINGS".
- Shall be delivered in both
  - AutoCAD \*.DWG (One file per drawing sheet)
  - Adobe Acrobat in\*.PDF format (One multi-page file per bid package, phase, or volume)

Project Manual / Technical Specification

- Shall be delivered in searchable Adobe Acrobat in \*.PDF
- One multi-page file per bid package, phase, or volume



**09 Building Information Modeling** *(for BIM Projects only)*

Refer to the BIM Execution Plan and BIM Project Delivery Standards (PDS) for file format and naming conventions.

**10 Space Data**

Room Schedule: Shall be delivered in database file format such as .xlsx. Maintain the leading zeros (when applicable) in the room numbers.

| Room Number                       | Room Name/<br>Description | Floor/Level   | Area <i>(BIM projects only)</i> |
|-----------------------------------|---------------------------|---|---------------------------------|
| 3-6 characters<br>(OSU developed) |                           | Refer to BIM Execution Plan<br>Section 10 for floor/level<br>naming conventions / samples |                                 |

Overall Floor Plan: Shall be delivered in AutoCAD \*.DWG

Site and Landscape Plan: Shall be delivered in AutoCAD \*.DWG