

April 2019

01 7700 – Closeout Procedures

PART 1 - GENERAL

1.01 Related Documents

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.02 Summary

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
 - 1. Substantial Completion procedures
 - 2. Final Completion procedures
 - 3. Warranties
 - 4. Closeout Documentation
 - 5. Final cleaning

1.03 Substantial Completion

- A. Submittals and Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following:
 - 1. Prepare a list of incomplete items that are to be completed and/or corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
 - 2. Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
 - a) Organize list of spaces in sequential order, starting with exterior areas first and proceeding from lowest floor to highest floor.
 - b) Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
 - c) Include the following information at the top of each page:
 - 1) Project name
 - 2) Date
 - 3) Name of Architect
 - 4) Name of Contractor

3. Advise Owner of pending insurance changeover requirements.
 4. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
 5. Submit Project Record Documents, Operation and Maintenance Manuals and any other Close Out submittals specified in Divisions 01 through 33.
 6. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 7. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 8. Complete startup and testing of systems and equipment.
 9. Submit test/adjust/balance records.
 10. Participate with Owner in conducting inspection and walkthrough with local emergency responders.
 11. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 12. Advise Owner of changeover in heat and other utilities.
 13. Perform preventative maintenance on equipment used prior to substantial completion.
 14. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
 15. Complete final cleaning requirements, including touchup painting.
 16. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 2. Subsequent reinspections, if required, will be invoiced to the Owner who will, in turn, deduct the amount from the Contractor's outstanding balance by Change Order thereby reducing the Contract amount.
 3. Results of completed inspection will form the basis of requirements for Final Completion.
 4. Following their inspection, Architect/Engineer will prepare and process a Certificate of Substantial Completion, containing:
 - a) Date of Substantial Completion
 - b) Punch List items to be completed or corrected
 - c) The time within which Punch List items shall be completed or corrected.

- d) Date and Time Owner will take occupancy of project or designated portion thereof.
- e) Responsibilities of Owner and Contractor for Insurance.
- f) Signatures of:
 - 1) Architect/Engineer
 - 2) Contractor
 - 3) Northern Illinois University

1.04 Final Completion

A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:

1. Application for Final Payment
 - a) Certificate of Application for Payment
 - b) Final Invoice-Voucher.
 - c) Separate releases of waivers of liens for all subcontractors, suppliers and others with lien rights against property, together with complete list of those parties.
 - d) Submit required Certified Payroll.
2. Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training videotapes.
5. Submit Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.

B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Subsequent reinspections, if required for final completion, will be invoiced to the Owner who will, in turn, deduct the amount from the Contractor's outstanding balance by Change Order thereby reducing the Contract amount.

1.05 Warranties

- A. Submittal Time: Submit signed written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
 1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
 2. Table of Contents: Neatly typed in orderly sequence:
 - a) Product or work item.
 - b) Firm, with principal's name, address and telephone number.
 - c) Scope.
 - d) Date of beginning of warranty or bond (in accord with General Conditions).
 - e) Duration of warranty or bond.
 - f) Provide information for Owner's personnel: Proper procedure in case of product or equipment failure.
 - g) Contractor, responsible principal's name, address and telephone number.
 3. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation.
 4. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, NIU Project number, and name of Contractor.
 5. Warranty Electronics File: Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide bookmarked table of contents at beginning of document.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

1.06 Project Record Documents

- A. Contractor
 1. At the Project Site, the Contractor shall maintain one record copy of:
 - a) Contract drawings, including any separate volume(s) of details.
 - b) Project Manual/Specifications.
 - c) Interpretations and supplemental instructions.
 - d) Addenda.
 - e) Reviewed, approved shop drawings and product data.
 - f) Other modifications to contract.

- g) Field test records.
- h) All schedules.
- i) Correspondence file.
2. Store documents in field office, apart from documents used for field construction.
3. Provide files and racks for document storage.
4. File documents in format in accord with Project Manual Table of Contents.
5. Maintain documents in clean, dry, legible condition.
6. Do not use record documents for field construction purposes.
7. Make documents available at all times for inspection by Architect/Engineer.
8. Provide paper and electronic closeout documentation.

B. Document Recording

1. Label each document "PROJECT RECORD DOCUMENTS" in 2" high printed letters.
2. Keep record documents current.
3. Do not permanently conceal any work until specified information has been recorded.
4. Contract drawings: Legibly mark to record actual construction:
 - a) Depths of various elements of foundation in relation to first floor level.
 - b) Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
 - c) Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
 - d) Field changes of dimension and detail.
 - e) Changes made by change order.
 - f) Details not on original contract drawings.
5. Project Manual/Specifications and addenda: Legibly mark up each section to record:
 - a) Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
 - b) Changes made by change order or field order.
 - c) Other matters not originally specified.
6. Shop drawings: Maintain as record documents; legibly annotate drawings to record changes made after review.
7. A/E will periodically review documents to confirm they are up-to-date.
8. Contractor payment may be withheld or reduced if record documents are not current.

C. Submittal

1. At completion of project, deliver the hard copy and an electronic copy of the record documents to the A/E.
2. Accompany submittal with transmittal letter, in duplicate, containing:
 - a) Date.
 - b) Project title and NIU project number.
 - c) Contractor's name and address.

- d) Title and number of each record document.
- e) Certification that each document submitted is complete and accurate.
- f) Signature of contractor, or his authorized representative.

1.07 Operating and Maintenance Manuals

- A. Compile product data and related information manual appropriate for Owner's maintenance and operation of products provided under the Contract. Operations and maintenance manual content may be specified in individual Specification Sections to be reviewed as the time of Section submittals.
- B. Prior to final submittal, submit a draft of all operations and maintenance manuals to the Architect, who will review and comment on whether content of operation and maintenance submittals are acceptable.
 1. Where applicable, clarify and update reviewed manual content to correspond to revisions and field conditions.
- C. Submit operations and maintenance manuals in the following format:
 1. Manuals
 - a) Hard Copy
 - 1) Quantity: 3 identical manuals.
 2. PDF electronic file. Assemble each manual into a composite electronically indexed file. Refer to 1.08 for further requirements. Otherwise, submit on digital media acceptable to the Architect.
 3. Form: Manufacturer's standard product data of same type and form furnished to manufacturer's maintenance personnel.
- D. Manual Content
 1. Binder
 - a) Provide neatly typewritten identification of the manual content, project name and contractor name on the cover and on the binder edge.
 2. Neatly typewritten table of contents for each volume, arranged in systematic order. Unless otherwise indicated, organize each manual into a separate section for system and subsystem. Each manual shall consist of the following materials:
 - a) Title Page
 - 1) Contractor, name of responsible principal, address and telephone number.
 - b) Table of Contents
 - 1) List of each product specified to be included, indexed to volume table of contents.
 - 2) List for each product:
 - i. Respective specification section.
 - ii. The name, address, and telephone number of subcontractor.
 - iii. Local supply source for replacement material.
 - c) Manual Contents.

- a. Follow Project Manual format.
- E. Product Data:
1. Include only sheets pertinent to specific product.
 2. Clearly identify specific product or part installed.
 3. Supplement product data with drawings to clearly illustrate relationship of component parts of equipment and systems.
- 1.08 Electronic Closeout Documentation
- A. General: Provide a complete project closeout documentation package in electronic format. This package shall include:
1. Issued for Construction Plans and Specifications
 2. Project Record Documents.
 3. **Final Approved** Submittals only.
 4. Operation and Maintenance Manuals.
 5. Warranties.
 6. Owner training Videos (.WMV or .MP4 Format)
 7. Project Contact Directory.
- B. The Electronic Closeout Documentation shall be prepared by BHFx Imaging. **GCs / CMs are responsible for the Closeout Fee.** Please contact Sarah Jacobs at 847-593-3161 x. 206 or sarah.jacobs@bhfx.net for Pricing and Closeout Organization Information
- C. In order to facilitate the Electronic Closeout Documentation process, comply with the following procedures:
1. Contact Digital Revolution, Inc. a minimum of three months prior to the date of Substantial Completion to schedule a pre-closeout meeting. Review the following:
 - a) Format of documents: PDF electronic format for all documents.
 - b) Folder structure for storage and transfer of files.
 - c) Schedule for collection and turn-over of closeout documentation.
 - d) Record Document format procedures: Provide clean and accurate paper copies of the marked-up Record Documents (Drawings and Specifications) for scanning.
 - e) Provide contact information for the individual responsible for the collection and transfer of the electronic closeout Documentation package contents.
 - f) Review a complete listing of closeout documentation package contents with the A/E and NIU prior to submitting.
 2. Provide all Documentation to Digital Revolution, Inc. for processing no later than 30 days after the date of Substantial Completion and a copy to NIU.
 3. Schedule a training conference with the Owner's Representative, Architect, and Digital Revolution, Inc. to present the completed Electronic Closeout Documentation Package.

PART 2 - PRODUCTS

2.01 Materials

- A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.01 Final Cleaning

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
 - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
 - a) Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
 - b) Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - c) Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
 - d) Remove tools, construction equipment, machinery, and surplus material from Project site.
 - e) Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - f) Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
 - g) Sweep concrete floors broom clean in unoccupied spaces.
 - h) Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
 - i) Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-

- obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
- j) Remove labels that are not permanent.
 - k) Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
 - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
 - l) Wipe surfaces of mechanical and electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
 - m) Replace parts subject to unusual operating conditions.
 - n) Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
 - o) Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
 - p) Clean ducts, blowers, and coils in compliance if units were operated without filters during construction or that display contamination with particulate matter on inspection.
 - 1) Clean HVAC system in compliance with NADCA Standard 1992-01. Provide written report on completion of cleaning.
 - q) Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
 - r) Leave Project clean and ready for occupancy.
 - s) Repair, patch and touch up marred surfaces to specified finish, to match adjacent surfaces.
 - t) Repair grass and planting beds. Using black dirt topsoil, fill and grade site areas damaged during the work to original elevations and slope.
- C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

End of Division 01 7700



This section of the NIU Design and Construction Standards establishes minimum requirements only. It should not be used as a complete specification.