

SECTION 01 77 00

Closeout Procedures

part 1 GENERAL

1.1 Related Work

A. 01 33 00 Submittal Procedures

1.2 References

1.3 Abbreviations

1.4 Overview: Project Closeout And Turnover Procedures

- A. The General Conditions of the Construction Contract contain instructions and requirements of the Contractor, the Architect and the University for acceptance of the project. SDSU also has internal procedures for turning over the project to the appropriate maintenance department. The Architect is responsible for including in the Specifications the obligations of the Contractor for an orderly acceptance and turnover. Included in such obligations are punch lists, "as-built" plans and specifications including CAD drawings, operating and maintenance manuals, and training of SDSU's maintenance personnel. The Project Manager is the point of contact with these departments.
- B. This document is intended to be used during the formulation process to identify costs that may or may not be associated with this procedure, and to identify to the contractor and subs exactly what is expected at turnover by Facility Services.
- C. This procedure is to be reviewed again during substantial completion by the User, PM and a Facility Services Representative to ensure that reporting procedures have been followed and this document has been adhered to with all pertinent documentation recorded and submitted.

part 2 PRODUCTS

2.1 Deliverables:

- A. Formal Notice of Maintenance Assumption by Facility Services: As mentioned above, a formal letter turning over maintenance to Facility Services will be delivered at substantial completion. Copy of the form letter shall be sent to the Owner representative and Facility Services Department representative.
- B. Turnover Documentation at Substantial Completion Phase: Once the Project Manager receives and reviews the turnover documentation, the project manager will transfer documents to SDSU.

Contractor shall submit the following turnover documentation electronically to the Project Manager by method of File Transfer Protocol (FTP) or by CDs:

1. Turnover Letter (includes Warranty Start Date and System Deliverable)
 2. Copy of current Punch List (showing exceptions if Contractor is to continue maintenance of specific systems).
 3. List of PM/GC and subcontractors for critical equipment, with persons to contact, addresses, and phone numbers for 24/7 contact for warranty items
 4. Operating and Maintenance Manuals for critical equipment
 5. Project Specific Turnover checklist (completed by PM, Zone Manager and Utility Rep)
 6. Completed Balance and Testing Reports
 - a. Air Balance Reports
 - b. Water Balance Reports
 7. Equipment training attendance sheet with training agenda
 8. Alarm Points and Set Points
 9. Copy of the County Certificate of Occupancy (includes any conditions of occupancy)
- C. Final Documentation at Closeout Phase: Once the Project Manager receives and reviews the documentation, the Project Manager will transfer documents to SDSU.
1. Notice of Completion – Closeout Letter (transmittal sheet listing all Final Deliverables)
 2. Completed Punch List of all items
 3. Final Warranty Letters
 4. Final As-Built Drawings (electronic: dwg and pdf files).
 5. Operating and Maintenance Manuals for all equipment
 6. Relevant Reports or Tests
 - a. Air/Water Balance and Testing, Vibration Testing, Acoustic Report, DI Water System Testing, etc.
 - b. Electrical Short-circuit Study and Arc Flash Hazard Analysis Calculations and Report
 - c. Annotated Basis of Design (if original Basis of Design has changed)
 - d. Annotated Project Specifications (if original Project Specifications has changed)
 - e. Commissioning Inspection Reports (including functional performance test and As-Built Sequence of Operations)
 7. Completed Project Specific Turnover checklist (completed by PM, Zone Manager and Utility Rep)
 8. Furniture Specifications (to be given to end user)
 9. Tools and Equipment Fit Up Matrix (if available/applicable)
 10. As-Built Energy & Water Model (if available/applicable)
 11. Final Submittals (only critical and digital submittals)
 12. 3D Model (if available/applicable)
 13. Warranty Issues
 14. Spare parts and material (Attic Stock)
 15. Alarm Points and Set Points (Final)
 16. Signed Off Permits

part 3 EXECUTION

3.1 Training of Maintenance Personnel:

- A. **Periodic Walk-Throughs during Construction:** At various stages of construction, Maintenance personnel shall, as deemed necessary (and scheduled by Facility Services), meet PM/GC and appropriate subcontractor foremen at jobsite to observe portions of the project concerning their trades, and to familiarize themselves with construction details before they are closed in. During periodic walk-throughs, (ideally during the construction phase of the project), the Facility Services Representative will try to identify any areas that might be difficult to reach, or access after portions of the building are closed in, and other possible maintenance problems. A written Site Observation list for corrections will be forwarded to the PM. These items are to be incorporated into the Project's punch-list and addressed accordingly by the PM/GC through coordination by the Facility Services Rep.
- B. **Acceptance Walk-Through:** After the Architect's inspection and walk-through for purposes of issuing a Certificate of Substantial Completion, an acceptance walk-through will be scheduled by the PM with Facility Services.
 - 1. In the event that a temporary or partial occupancy permit is issued by the county, prior to substantial completion, such documentation shall be attached to the substantial completion form for review by all parties (i.e.; Architect, PM/GC, Facility Services personnel including; Building Maintenance, Utilities, Maps & Records, Zones, Contract Services and Grounds).
- C. To aid Facility Services in the acceptance period, the Contract Specifications should provide for negotiated amount of training. This time would be utilized for each Foreman of the electrical, mechanical, and plumbing subcontractors to be made available to Facility Services for further instruction (if necessary), so that subjects not fully covered in the formal acceptance walk-through may be discussed further.
- D. The date of the Certificate of Substantial Completion establishes the start of the warranty period, with exceptions noted and estimated completion dates for exceptions, which is for one year unless otherwise stated in the Contract Documents. If any punch list items not corrected are noted by the occupant or any Facility Services Staff during this lien period, the Facility Services Rep. will promptly inform the Project Manager. However, it is the responsibility of the Project Manager to insure timely completion of Punch List corrections.
 - 1. Quarterly meetings are to be scheduled and attended by the PM/GC, Building Manager and Facility Services Rep. to discuss any on-going warranty issues (if applicable)

3.2 DEFICIENCIES

- A. **Design Deficiency Problems:** In some cases, Facility Services will discover that the Building Occupant complaint relates neither to maintenance nor warranty deficiencies. Facility Services will then contact the PM, describe the problem, and recommend any improvements deemed

necessary. If the problem is indeed a design or construction defect or error, the PM will discuss the matter with the Building Occupant, the Architect/Engineer, and Facility Services to determine a solution, if possible. Corrective work then will be performed by contract, negotiated or bid by the PM.

- B. Equipment Failure under Warranty: All new equipment shall be assumed to be in prime operating condition upon turnover. Facility Services will perform routine maintenance in accordance with the operating manuals, with the first scheduled maintenance measured from the date of turnover. The Project must provide Facility Services with all applicable O&M documents, warranty documents and contractor/vendor contact information at turnover. All equipment failures during the first year of warranty are the responsibility of Zone Management to schedule repair by the responsible sub-contractor.

END OF SECTION