



.1 As-Built Documents

- .1 As early as possible prior to application for final payment, the Contractor shall review, seal and sign one Draft copy of the As-Built documents to the Consultant and the Owner.
- .2 Once the as-built documents have been accepted by the Owner and the Consultant as complete, the Contractor shall submit Final As-Built Documents:
 - .1 Hard Copies - Two (2)
 - .2 PDF Electronic Copies - Two (2)

.2 Operations and Maintenance Manual

- .1 Submit to the Consultant, at Substantial Performance of the Work, for University use, in the consultant approved, complete and final version:
 - .1 Two (2) Hard Copies – organized in 3-ring binders
 - .2 Two (2) PDF Electronic Copies of full binder contents on CD, DVD, or flash drive.
- .2 Organize data as instructional manual for use by Owner's personnel.
- .3 Organize information in 3 'D' ring binders:
 - .1 Commercial quality, with durable and cleanable plastic covers.
 - .2 To fit 215mm x 280mm size paper.
- .4 When multiple binders are used, correlate data into related consistent groupings and identify contents of each binder on spine.
- .5 Cover: identify each binder with type or printed title "OPERATION AND MAINTENANCE MANUAL"; list title of project and identify subject matter of contents.
- .6 Arrange content by systems, under Section numbers and sequence of Table of Contents.
- .7 Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- .8 Drawings: provide with reinforced punched binder tab.
 - .1 Bind in with text; fold larger drawings to size of text pages.
- .9 Contents of Manual to include:
 - .1 Project Team Listing
 - .1 Consultants: Contact names, roles, contact information, scope of services.
 - .2 Contractors: Contact names, contact information, scope of work.
 - .3 Testing and Inspection Agencies: Scopes of service, contact names and contact information.
 - .2 Complete Products Listing:
 - .1 Assembled in each Section, provide a list of all products:
 - .1 Manufacturer
 - .2 Model/Product Number
 - .3 Color / Finish
 - .4 Supplier
 - .5 LEED Compliance
 - .3 Certificates of Acceptance: Relevant certificates issued by authorities having jurisdiction, including Occupancy Certificate.
 - .4 Final inspection reports by testing agencies, municipal, safety and other Authorities.
 - .5 Training of University O&M staff.
 - .6 Shop Drawings
 - .7 Warranties, Bonds and Service and Maintenance Contracts original documents shall be provided and bound in a separate volume, as identified in this section.



- .1 Insert copies of the original Warranties, Bonds and Service and Maintenance Contracts in all Manuals, within the related Section of Work.

.3 Warranties, Bonds, and Service / Maintenance Contracts

Attend to all Warranties, and Service / Maintenance Contracts in accordance with industry standards, with particular attention to the following

- .1 Conduct joint eleventh month warranty review, measured from time of acceptance, by FMGT and Consultant.
- .2 Information in binders to be organized as follows:
 - .1 Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.
 - .2 List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
 - .3 Obtain Warranties, Bonds and Service and Maintenance Contracts, executed in duplicate by subcontractors, suppliers, and manufacturers, within ten (10) days after completion of applicable item of work.
 - .4 Verify that documents are in proper form, contain full information, and are notarized.
 - .5 Co-execute submittals when required.
 - .6 Retain warranties, bonds and service and maintenance contracts until time specified for submittal.
- .3 Submittals
 - .1 Number of original documents required: one (1) each. Provide one (1) 3 'D' ring binder titled "Warranties Bonds and Service and Maintenance Contracts" to include all original documents.
 - .2 Insert copies of original Warranties Bonds and Service and Maintenance Contracts in all Operating and Maintenance Manuals (4), within the related Section of Work.
 - .3 Electronic Copy: submit full binder contents, in the approved, complete and final version, on CD or DVD.

.4 Warranty Tags

- .1 Tag, at time of installation, each warranted item. Provide durable, oil and water resistant tag approved by Consultant or Departmental Representative, as directed.
- .2 Attach tags with copper wire and spray with waterproof silicone coating.
- .3 Leave date of acceptance until project is accepted for occupancy.
- .4 Indicate following information on tag:
 - .1 Type of product/material.
 - .2 Model number.
 - .3 Serial number.
 - .4 Contract number.
 - .5 Warranty period.
 - .6 Inspector's signature.
 - .7 Construction Contractor.