

**PART 1 GENERAL**

**1.1 RELATED REQUIREMENTS**

- .1 Section – Not used.

**1.2 ADMINISTRATIVE REQUIREMENTS**

- .1 Pre-warranty Meeting:
  - .1 Convene meeting two (2) weeks prior to contract completion with contractor's representative and Departmental Representative in accordance with Section 01 31 19 - Project Meetings to:
    - .1 Verify Project requirements.
    - .2 Review warranty requirements and manufacturer's installation instructions.
  - .2 Departmental Representative to establish communication procedures for:
    - .1 Notifying construction warranty defects.
    - .2 Determine priorities for type of defects.
    - .3 Determine reasonable response time.
  - .3 Contact information for bonded and licensed company for warranty work action: provide name, telephone number and address of company authorized for construction warranty work action.
  - .4 Ensure contact is located within local service area of warranted construction, is continuously available, and is responsive to inquiries for warranty work action.

**1.3 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Two (2) weeks prior to Substantial Performance of the Work, submit to the Departmental Representative , four (4) final copies of operating and maintenance manuals in English and French.
- .3 Provide spare parts, maintenance materials and special tools of same quality and manufacture as products provided in Work.
- .4 Provide evidence, if requested, for type, source and quality of products supplied.

**1.4 FORMAT**

- .1 Organize data as instructional manual.
- .2 Binders: vinyl, hard covered, 3 'D' ring, loose leaf 219 x 279 mm with spine and face pockets.
- .3 When multiple binders are used correlate data into related consistent groupings.
  - .1 Identify contents of each binder on spine.
- .4 Cover: identify each binder with type or printed title 'Project Record Documents'; list title of project and identify subject matter of contents.

#### **1.4           FORMAT (cont'd)**

- .5     Arrange content under Specifications Section numbers and sequence of Table of Contents.
- .6     Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- .7     Text: manufacturer's printed data, or typewritten data.
- .8     Drawings: provide with reinforced punched binder tab.
  - .1       Bind in with text; fold larger drawings to size of text pages.
- .9     Provide scaled CAD files in dwg format on CD.

#### **1.5           CONTENTS - PROJECT RECORD DOCUMENTS**

- .1     Table of Contents for Each Volume: provide title of project;
  - .1       Date of submission; names.
  - .2       Addresses and telephone numbers of Departmental Representative and Contractor with name of responsible parties.
  - .3       Schedule of products and systems, indexed to content of volume.
- .2     For each product or system:
  - .1       List names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
- .3     Product Data: mark each sheet to identify specific products and component parts, and data applicable to installation; delete inapplicable information.
- .4     Drawings: supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
- .5     Typewritten Text: as required to supplement product data.
  - .1       Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified in Section 01 45 00 - Quality Control.

#### **1.6           AS -BUILT DOCUMENTS AND SAMPLES**

- .1     Maintain, at site for Departmental Representative one record copy of:
  - .1       Contract Drawings.
  - .2       Specifications.
  - .3       Addenda.
  - .4       Change Orders and other modifications to Contract.
  - .5       Reviewed shop drawings, product data, and samples.
  - .6       Field test records.
  - .7       Inspection certificates.
  - .8       Manufacturer's certificates.
- .2     Store record documents and samples in field office apart from documents used for construction.
  - .1       Provide files, racks, and secure storage.

**1.6 AS -BUILT DOCUMENTS AND SAMPLES (cont'd)**

- .3 Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual.
  - .1 Label each document "PROJECT RECORD" in neat, large, printed letters.
- .4 Maintain record documents in clean, dry and legible condition.
  - .1 Do not use record documents for construction purposes.
- .5 Keep record documents and samples available for inspection by Departmental Representative.

**1.7 RECORDING INFORMATION ON PROJECT RECORD DOCUMENTS**

- .1 Record information on set of black line opaque drawings, and in copy of Project Manual, provided by Departmental Representative..
- .2 Use felt tip marking pens, maintaining separate colours for each major system, for recording information.
- .3 Record information concurrently with construction progress.
  - .1 Do not conceal Work until required information is recorded.
- .4 Contract Drawings and shop drawings: mark each item to record actual construction, including:
  - .1 Measured depths of elements of foundation in relation to finish first floor datum.
  - .2 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  - .3 Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.
  - .1 Field changes of dimension and detail.
  - .2 Changes made by change orders.
  - .3 Details not on original Contract Drawings.
  - .4 References to related shop drawings and modifications.
- .5 Specifications: mark each item to record actual construction, including:
  - .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
  - .2 Changes made by Addenda and change orders.
- .6 Other Documents: maintain manufacturer's certifications, inspection certifications, field test records, required by individual specifications sections.
- .7 Provide digital photos, if requested, for site records.

**1.8 FINAL SURVEY**

- .1 Submit final site survey certificate certifying that elevations and locations of completed Work are in conformance, or non-conformance with Contract Documents.

## **1.9 MATERIALS AND FINISHES**

- .1 Building products, applied materials, and finishes: include product data, with catalogue number, size, composition, and colour and texture designations.
  - .1 Provide information for re-ordering custom manufactured products.
- .2 Instructions for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .3 Moisture-protection and weather-exposed products: include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .4 Additional requirements: as specified in individual specifications sections.

## **1.10 WARRANTIES AND BONDS**

- .1 Develop warranty management plan to contain information relevant to Warranties.
- .2 Submit warranty management plan, 30 days before planned pre-warranty conference, to Departmental Representative for approval.
- .3 Warranty management plan to include required actions and documents to assure that Departmental Representative receives warranties to which it is entitled.
- .4 Provide plan in narrative form and contain sufficient detail to make it suitable for use by future maintenance and repair personnel.
- .5 Submit, warranty information made available during construction phase, to Departmental Representative for approval prior to each monthly pay estimate.
- .6 Assemble approved information in binder, submit upon acceptance of work and organize binder 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 and bonds, 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 and bonds until time specified for submittal.
- .7 Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial Performance is determined.
- .8 Conduct four (4) month and nine (9) month joint warranty inspection, measured from time of acceptance, with Departmental Representative.
- .9 Include information contained in warranty management plan as follows:
  - .1 Roles and responsibilities of personnel associated with warranty process, including points of contact and telephone numbers within the organizations of Contractors, subcontractors, manufacturers or suppliers involved.

**1.10 WARRANTIES AND BONDS (cont'd)**

- .2 Listing and status of delivery of Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, commissioned systems, fire protection systems, alarm systems, sprinkler systems, lightning protection systems.
- .3 Provide list for each warranted equipment, item, and feature of construction or system indicating:
  - .1 Name of item, system or lot.
  - .2 Model and serial numbers.
  - .3 Location where installed.
  - .4 Name and phone numbers of manufacturers or suppliers.
  - .5 Names, addresses and telephone numbers of sources of spare parts.
  - .6 Warranties and terms of warranty: include one (1) year overall warranty of construction. Indicate items that have extended warranties and show separate warranty expiration dates.
  - .7 Cross-reference to warranty certificates as applicable.
  - .8 Starting point and duration of warranty period.
  - .9 Summary of maintenance procedures required to continue warranty in force.
  - .10 Cross-Reference to specific pertinent Operation and Maintenance manuals.
  - .11 Organization, names and phone numbers of persons to call for warranty service.
  - .12 Typical response time and repair time expected for various warranted equipment.
- .4 L'expression de l'intention de l'Entrepreneur d'être présent aux inspections prévues neuf (9) mois après le parachèvement des travaux concernés.
- .5 La procédure d'étiquetage des éléments, matériels et systèmes couverts par une garantie prolongée, et son état d'avancement.
- .6 L'affichage d'exemplaires des instructions d'exploitation et d'entretien près des pièces de matériel désignées, dont les caractéristiques d'exploitation sont importantes pour des raisons tenant à la garantie ou à la sécurité.
- .10 Respond in timely manner to oral or written notification of required construction warranty repair work.
- .11 Written verification to follow oral instructions:
  - .1 Failure to respond will be cause for the Departmental Representative to proceed with action against Contractor.

**PART 2 PRODUCT**

**2.1 NOT USED.**

- .1 Not Used.

**PART 3        EXECUTION**

**3.1            NOT USED.**

.1        Not Used.

**END OF SECTION**