

## **SECTION 220503 - SUBMITTALS FOR PLUMBING**

### **PART 1 - GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 01 Specification Sections and Division 22 Common Work Results for Plumbing Piping apply to this Section.

#### **1.2 SUMMARY**

- A. Section Includes: Administrative, content and format requirements for preparation and submission of submittals.
- B. Work of this Section is supplemental and additive to the requirements of Section 013300 where included in the Project Manual.

#### **1.3 PRICE AND PAYMENT PROCEDURES**

- A. Payment in full or in part may be withheld from the Contractor for failure to comply with submittal requirements articulated in the Contract Documents.

#### **1.4 SUBMITTALS**

- A. Submittals shall be furnished for each Section that includes one or more of the following elements of work:
  - 1. Supply of one or more products.
  - 2. Installation of one or more products.
  - 3. Integration of one or more products.
  - 4. Creation of one or more deliverable products.
  - 5. Labeling of one or more products.
  - 6. Contractor-based design or engineering of one or more products or systems.

### **PART 2 - PRODUCTS (NOT USED)**

### **PART 3 - EXECUTION**

#### **3.1 GENERAL**

- A. Submittals shall be routed through established Project channels as identified by the Owner's representative.
- B. Coordinate, assemble, title, transmit and track Project submittals.

- C. Label each submittal of each type similarly for consistency and so they appear as if prepared by the same entity. Like-type submittals (e.g., Product Data) from different Sections shall feature the same appearance and organization as those of other Sections.
- D. Submittals prepared by subcontractors or vendors shall not be accepted unless prepared in compliance with the Contract Documents and this specification.
- E. Submittal items listed in this Section represent the common items required to be supplied for the various specification Sections throughout the duration of the Project. Individual Sections will vary and may include additional or lesser requirements.
- F. Designer reserves the right to require additional submittals or to waive select submittal requirements on a Section-by-Section basis. Additional submittals shall be provided at the Contractor's expense.
- G. The cost for preparation and transportation of submittals is Work of the Contract.
- H. Bind physical/hardcopy submittals together. Do not submit loose or paper clipped documents.
- I. Supply separate submittals for each Specification Section. Do not combine multiple Sections together into a single submittal, except where expressly directed within the Contract Documents.
- J. Where electronic submittals are required or permitted, comply with the requirements for electronic submittals as identified in the Contract Documents.
- K. Organize submittals as identified in the Contract Documents.
- L. Furnish submittals for different Specification Sections each with its own transmittal form. A single transmittal shall not be used to identify submittals for more than one (1) Specification Section at a time. This allows for tracking and processing efficiency, so that:
  - 1. Each Section may be reviewed simultaneously by different individuals, as appropriate.
  - 2. Individual Sections may be processed and returned more quickly than others when some Sections require longer review times.
  - 3. Submittals that are returned and marked as "Revise and Resubmit" do not cause submittals for other Sections to be also be resubmitted due to the fact that they were bound together as a single unit.
- M. Availability of Electronic Drawings
  - 1. Refer to Common Requirements specification section within this discipline for specifics in regards to obtaining electronic editable versions of drawings for the creation of shop and as-built drawings.

### **3.2 SUBMITTAL TYPES**

- A. The following are the common submittal types referenced in this Section:
  - 1. Quality Assurance (QA).
  - 2. Product Data (PD).
  - 3. Shop Drawing (SD).
  - 4. Training (TG).
  - 5. Field Observation Response (FO).
  - 6. Closeout Submittal (CO).

### **3.3 SUBMITTAL SEQUENCE**

- A. Quality Assurance Submittal:
  - 1. When not expressly requested to be supplied with bid, the Quality Assurance submittal(s) shall be supplied upon request. When requested the submittal shall be delivered to the Designer within 16 business hours.
- B. Product Data Submittal:
  - 1. Submit following contract award or notice of intent to award a contract. Product data shall be submitted and reviewed prior to procurement of materials.
- C. Shop Drawing Submittal:
  - 1. Submit for review prior to commencement of fabrication and installation.
  - 2. Submit concurrently with Section-specific Product Data submittals.
- D. Training Submittal:
  - 1. Submit thirty (30) days prior to the first training session.
- E. Field Observation Report Submittal:
  - 1. Submit five (5) business days prior to punch list walkthrough.
- F. Closeout Submittal:
  - 1. Submit following completion of onsite work but not more than ten (10) business days following successful Acceptance Testing.

### **3.4 SUBMITTAL IDENTIFICATION**

- A. Identify each submittal uniquely.
- B. Identify each submittal by specification Section number, submittal type, and submittal iteration.

- C. The format for labeling the submittals shall be as follows:
  - 1. Section Number–Submittal Type Abbreviation–Submittal Iteration.
  - 2. Examples:
    - a. First Product Data Submittal for section 224000: “224000-PD-00.”
    - b. Revised Product Data Submittal for section 224000: “224000-PD-01.”
    - c. Second Revised Product Data Submittal for 224000: “224000-PD-02.”

### **3.5 SUBMITTAL CONTENTS**

- A. All Submittals:
  - 1. Transmittal:
    - a. Supply a dedicated transmittal for submittals for each individual Section.
    - b. Itemize the specific submittals included by Section, submittal type, and iteration.
  - 2. Title Sheet:
    - a. Include a separate title sheet with each submittal, of each type.
    - b. Title sheets for each Section, for each submittal type, shall have the same appearance.
    - c. Title sheets for product data submittals shall be 8-1/2 inches x 11 inches.
    - d. Title sheets for drawings shall be the same size as the associated drawings.
    - e. Create title sheets to have the appearance and information identified on the sample title sheet published at the end of this Section.
  - 3. Index:
    - a. Include an index outlining and identifying the contents of the submittal.
    - b. The index for drawing submittals shall be incorporated onto the title sheet of the corresponding drawing set.
  - 4. Checklists:
    - a. Include the checklist(s) published in the Contract Documents corresponding to the type of submittal being supplied. Applicable checklists are found at the end of this Section and may also be found within individual Sections.
  - 5. Title Blocks:
    - a. Drawing submittals shall be created on the Contractor’s, manufacturer’s, or vendor’s own title block. The title blocks of the Owner, Architect, Engineer, Designer or their Consultants shall not be reproduced on any document (electronic or hardcopy) that is prepared or altered by the Contractor.

6. Legend:
  - a. Drawing submittals shall include a legend of symbology.
7. Resubmittals:
  - a. Resubmittals shall include a replica of the reviewer's comments that necessitated the resubmittal, along with an accompanying item-by-item explanation of the actions taken and changes that will be found within the resubmittal.

B. Quality Assurance Submittals:

1. List of Subcontractors to be used on the Project along with a description of the role each will play on the Project.
2. The last six (6) projects that the Contractor (and each proposed Subcontractor) has completed that are of similar scope, size and contract value. References shall include:
  - a. Owner's name and current contact information.
  - b. Project address.
  - c. Description of the system(s) and scope of actual work performed.
  - d. Monetary contract value of the Work performed.
3. Financial Disclosure of the Contractor: Prior to contract award, upon request.
4. Product Datasheets Submittals:
  - a. Separate manufacturer datasheets for each product.
  - b. Datasheets shall be manufacturer originals or first generation printed versions (i.e., from PDF) of the manufacturer's official electronic datasheet:
    - 1) Distributor modified, distributor branded, and/or html based "web" datasheets are not acceptable.
    - 2) Datasheets shall include size and technical support data.
  - c. Where manufacturer's datasheets depict multiple products, versions and options, indicate via highlighting, underlining, or with bold visible arrows the model(s), version(s) and option(s) being supplied. Exact catalog number(s) shall be indicated.
  - d. Each datasheet shall be labeled with the Section paragraph reference number. Datasheets shall include the Drawing reference when no specific paragraph reference exists within the Section.

C. Shop Drawing Submittals:

1. General:
  - a. Drawing descriptions identify the required contents of common drawings required under the Contract.

- b. Drawings identified within individual Sections, along with any additional drawings deemed necessary by the Designer, are required.
  - c. Drawing Scales:
    - 1) Floor plans shall be drawn to scale.
    - 2) Section drawings shall be drawn to scale.
    - 3) Elevation drawings shall be drawn to scale.
    - 4) Details of physical items shall be drawn to scale.
  - d. Sizes:
    - 1) Sheet sizes shall match the size of the Contract Drawings sheets, except where otherwise expressly requested or approved in advance by the Designer.
- D. Training Submittals:
- 1. Proposed schedule.
  - 2. Training agendas for each session.
  - 3. Identification of personnel that will conduct training.
  - 4. Handouts proposed for distribution during training.
- E. Field Observation Report Submittals:
- 1. Written responses to Field Observation Reports supplied to the Contractor during the course of the Project:
    - a. The response shall include a copy of the original Field Observation Report.
    - b. The response shall include detail of the corrective action taken, the date the action was taken and the identity of the individual who took the action.
- F. Closeout Submittals:
- 1. As-Built Drawings:
    - a. General:
      - 1) Requirements for Shop Drawings apply to “As-Built” drawings.
    - b. Required Drawings:
      - 1) Title Sheet.
      - 2) Floor Plans.
      - 3) As-built version of each Project shop drawing.
    - c. Drawing Formats:
      - 1) Electronic Editable: Editable version using the native application used to create the file (e.g., Revit, AutoCAD).
      - 2) Non-Editable: PDF file format.
      - 3) Printed Hardcopy.
      - 4) Sheets shall be the same size and feature consistent title block information in the lower-right corner.

- d. Drawing Organization:
  - 1) Hardcopy drawings shall be bound together into logical sets, bound along the left edge of the sheets.
  - 2) The first page of the set shall include a detailed index and sheet-by-sheet description of each drawing sheet.
2. Operation and Maintenance Manuals:
  - a. Manual Format:
    - 1) Hard-cover 3-ring type binder.
    - 2) Front clear plastic cover pocket complete with Project and system Information insert.
    - 3) Clear plastic spine pocket with Project and system Information insert.
    - 4) Binder sized to suit the contents only, neither oversized nor undersized.
    - 5) Maximum binder thickness: 3 inches.
  - b. Manual Contents and Organization:
    - 1) General:
      - a) Separate binder (or binder set) for each system, labeled. Provide no more than one system per binder (or binder set).
      - b) Separate CD-ROM (or CD-ROM set) for each system, labeled. Provide no more than one system per CD-ROM (or CD-ROM set).
      - c) Do not overfill. Binders shall not be filled beyond an easily usable capacity.
      - d) Insert labeled tabs within binder to identify separate contents of the manual.
      - e) Labeled sub-directories shall be created on the CD-ROM to label and separate contents for the manual.
    - 2) Project Information Cover:
      - a) Title of Project.
      - b) Name and address of Owner, Designer, Architect, Contractor of Record and Subcontractor.
      - c) System name and specification references.
    - 3) Index:
      - a) Contents of the manual.
    - 4) Warranty Statement:
      - a) A warranty statement shall be included for each system. The warranty statement shall reiterate the terms of warranty identified within the Contract Documents, as well as identify how the Owner is to obtain warranty service.
      - b) The warranty statement shall clearly identify which products are covered by Manufacturer warranties beyond the Contractor required minimum warranty period. The term of manufacturer warranty shall also be identified (e.g., 2 year parts and labor).

- c) A separate warranty statement shall be supplied for each system.
  - d) Identify the date that the warranty for the system starts. This date shall be the date listed on the Certificate of Substantial Completion (if one was issued to the contractor specifically for the system) or the date listed on the Notice of Final Completion.
  - e) Supply standard out-of-warranty service rates and service contact information.
- 5) Bill of Materials:
    - a) List of products supplied.
    - b) Serial numbers of each product.
  - 6) Product Datasheets (supply only in the electronic version of Operation and Maintenance Manual):
    - a) Manufacturer datasheets for each product supplied.
  - 7) Manufacturer Owner / User Manuals:
    - a) Manufacturer's Owner's or User's manual for each product.
    - b) Manufacturer's Installation instructions and other documentation supplied with the product.
  - 8) Test Reports and Checklists:
    - a) Test reports, checklists, and other forms generated and completed during the course of the Project.
  - 9) As-Built Drawings:
    - a) The hardcopy manual shall contain reduced scale printed version (11x17) of system-specific drawings.
    - b) The electronic manual shall contain electronic PDF version of the as-built drawings.

### **3.6 SUBMITTAL QUANTITY**

#### **A. General:**

- 1. The quantity of submittals required shall be the greater of the following:
  - a. Quantity identified within Division 01.
  - b. Quantity identified within the individual Section.
  - c. Quantity identified herein.
- 2. In addition to the Contract required quantity, the Contractor shall also submit any additional quantities required for its own use and records, and for distribution to other trades.
- 3. The Designer shall retain a copy of each submittal received. Others in the submittal communication chain may also retain copies.

#### **B. Product Data Submittals:**

- 1. Two (2) Hardcopies.
- 2. One (1) Electronic.

## C. Shop Drawings Submittals:

1. Two (2) Hardcopies.
2. One (1) Electronic.

## D. Field Observation Report Submittals:

1. Two (2) Hardcopies.
2. One (1) Electronic.

## E. Samples Submittals:

1. Two (2) Hardcopies.
2. One (1) Electronic.

**3.7 SUBMITTAL REJECTION**

## A. The following items are representative reasons that submittals may need to be revised and resubmitted:

1. Binding submittals for multiple Sections together.
2. Failing to supply separate transmittal for submittals for each Section.
3. Failing to include a submittal title sheet.
4. Failing to use and accurately complete the published title sheet.
5. Failing to supply and accurately complete the submittal checklists.
6. Failing to supply product data and shop drawings at the same time.
7. Failing to supply product data sheets.
8. Failing to supply product data sheets with the correct product and required accessories enumerated.
9. Failing to supply shop drawings.
10. Failing to supply shop drawings with required information.
11. Failing to supply accurate information.
12. Failing to supply relevant information required by the Specifications.
13. Failing to supply products that are in compliance with the Specifications.
14. Failing to supply the required information in the required format.

**3.8 RESUBMITTALS**

## A. Revise and Resubmit:

1. When a submittal is rejected and flagged as “Revise and Resubmit,” the entire submittal shall be reviewed, revised and resubmitted in totality.
2. Resubmittals shall be checked for compliance with the Contract Documents, inclusive of requirements for submittals. In addition, any comments and deficiencies identified by the reviewer shall be appropriately acted upon.

## B. Exceptions Noted:

1. When a submittal is flagged as “Exceptions Noted,” the specific actions identified shall be taken.
  2. If the reviewer’s comments include selective rejection of products, the resubmittal shall be limited to include those items commented upon.
- C. Resubmittals shall:
1. Include a copy of the reviewer’s previous comments.
  2. Include a written description of the action(s) taken.
  3. Be labeled chronologically.
  4. Be inclusive of all corrective action identified by the previous reviewer.

### **3.9 ELECTRONIC SUBMITTALS**

- A. Electronic submittals shall only be permissible where electronic submittals are expressly required and where express approval for such has been granted.
- B. Electronic submittal files shall be compatible for opening and viewing with electronic PDF file readers that fully support and recognize the Adobe PDF Portable Document Format Standard, version 1.5.
- C. Major text within the files shall be electronically searchable using the search-for-text features of current generation Adobe PDF reader software. Files shall be prepared in such manner that reviewers will have the option to search for and find words and phrases that appear within the document, electronically. Documents featuring raster-based text and text that is otherwise not searchable shall not be acceptable. This precludes the use of documents that have been electronically scanned and then converted to or embedded within an electronic file.
- D. The organization, contents, and labeling of information along with other requirements for submittals apply also to electronic versions of the submittals.
- E. Single File Submission:
1. Option 1 – Single File, PDF Format:
    - a. Single PDF file submittals shall be assembled from a series of individual files that are organized, indexed, bound together as one composite file that is bookmarked to aid the reviewer in navigating the content.
    - b. The file shall feature a navigational tree of contents, organized by content groups (e.g., Title Page, Index, Datasheets, Shop Drawings). Content groups shall be organized in the same relative order identified within the Contract Documents.
    - c. Within each content group shall be the supporting elements of the group (e.g., product datasheets under the Datasheets group). Each element of the content group shall appear separately as a subordinate element of the group (e.g., separate entry for each product datasheet, separate entry for each shop drawing), and viewable from the navigational contents tree.

- d. Under the Datasheets content group, individual product datasheet entries shall be identified by Make/Brand and Model. Entries shall be organized in a sorted manner, first by make, then by model.
  - e. If the resulting size of the composite PDF file exceeds 10 Megabytes, supply the submittal using the Single Zip File method instead, as described in this Section.
  - f. The file name used to label the submittal shall be the section number followed by the submittal instance number for that Section (e.g., 224000-PD-01.pdf).
    - 1) Where the Designer directs the supply of multiple zip files for a submittal, add additional text to the file name to identify that the file is part of a multi-file set of submittals, as per the following examples:
      - a) 224000-PD-01 (1 of 3).pdf
      - b) 224000-PD-01 (2 of 3).pdf
      - c) 224000-PD-01 (3 of 3).pdf
2. Option 2 – Single File, Zip Format:
- a. Single Zip File submittals shall be assembled from a series of individual PDF files and file directories that are contained with a single compressed WinZip compatible “.zip” file.
  - b. The file shall contain separate top-level directories that are used to group related content (e.g., 00-Title Page, 01-Index, 03-Datasheets, 04-Shop Drawings), with each directory appearing in the same relative order as that identified in the Contract Documents.
  - c. Within each content group directory shall be separate PDF-compliant files featuring the information required (e.g., separate datasheet file for each product, separate file for each drawing).
  - d. Product datasheet files shall be named using a consistent naming convention that enables those files to appear sorted and grouped when the file is opened for navigation, viewing or extraction by the reviewer.
  - e. Product datasheet files shall be consistently named with the make/brand of the product, followed by model number, followed by any additional information beneficial.
  - f. Consult the Designer for supplement instructions should the WinZip file exceed 50 Megabytes in size.
  - g. The file name used for the submittal shall be the Section number followed by the submittal instance number for that Section (e.g., 224000-PD-01.zip).
    - 1) Where the Designer directs the supply of multiple zip files for a submittal, add text to the file name that identifies the file is part of a multi-file set as per the following examples:
      - a) 224000-PD-01 (1 of 3).zip
      - b) 224000-PD-01 (2 of 3).zip
      - c) 224000-PD-01 (3 of 3).zip

**END OF SECTION 220503**

SUBMITTAL TITLE SHEET

EXAMPLE

(Form: Sub-1)

PROJECT TITLE:

Project Name Line 1

Project Name Line 2

Project Name Line 2

SUBMITTAL TYPE:

Product Data

SECTION SUBMITTAL NUMBER

224000.00-PD-00

SECTION TITLE:

Plumbing Fixtures

Date Prepared:

yyyy-mm-dd

CONTRACTOR OF RECORD:

Firm Name

Address 1

Address 2

City, State, Zip

Phone (000) 000-0000, Fax (000) 000-0000

Project Manager: Full Name

PM E-Mail: xxxxxxxx@xxxx.xxx

SECTION SUBCONTRACTOR(S):

Firm Name Address 1 Address 2 City, State Zip Phone (000) 000-0000 Fax (000) 000-0000 PM Name: Full Name PM E-Mail: xxxxxxxx@xxxx.xx	Firm Name Address 1 Address 2 City, State Zip Phone (000) 000-0000 Fax (000) 000-0000 PM Name: Full Name PM E-Mail: xxxxxxxx@xxxx.xx
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**PRODUCT DATA SUBMITTAL  
CHECKLIST**  
*(Form: Sub-2)*

*Each line below featuring text shall be supplied with an answer.*

	No	Yes
Transmittal		
Title Sheet		
Project Name		
Specification Section number		
Submittal iteration number <i>(0 for first iteration, 1 + for each subsequent iteration (e.g., 224000-0, 224000-1))</i>		
Contractor of Record identified		
Sub-contractor / vendor / supplier name identified		
Title Sheet appearance consistent with sample title sheet		
Checklists included		
This checklist		
Checklists from Section being submitted (where applicable)		
Previous submittal review, with contractor actions and comments		
Product Datasheets included		
Datasheets are manufacturer originals		
Datasheets for each product included		
Section paragraph and/or Drawing reference on each datasheet		
Product accessories and options identified		
Products organized by paragraph (or alphabetically by brand)		
No photocopies, faxes and other illegible datasheets included		
Shop Drawings included		
Shop drawings accompany this product data submittal.		
This submittal contains product data for one Section only.		

*This checklist serves as a simple and abbreviated reminder of the contents and format of the aforementioned submittal. Refer to Section 220503 "Submittals for Plumbing" and each specific Section for additional submittal requirements. Submittals are subject to rejection if this checklist is not accurately completed and provided along with the specified information. Reproduce this checklist and submit with each submittal for each Section.*