

SUBMITTALS

1. SHOP DRAWINGS

1.1 General

- .1 Arrange for the preparation of clearly identified Shop Drawings as specified or as the Contract Administrator may reasonably request. Shop Drawings are to clearly indicate materials, methods of construction, and attachment or anchorage, erection diagrams, connections, explanatory notes, and other information necessary for completion of the Work. Where articles or equipment attach or connect to other articles or equipment, clearly indicate that all such attachments and connections have been properly coordinated, regardless of the trade under which the adjacent articles or equipment will be supplied and installed. Shop Drawings are to indicate their relationship to design Drawings and Specifications. Notify the Contract Administrator of any deviations in Shop Drawings from the requirements of the Contract Documents to allow the Contract Administrator to assess the deviations.
- .2 Where all or part of the Shop Drawings are to be prepared under the stamp and seal of a Professional Engineer registered in the Province of Manitoba, the Contract Administrator will limit that review to an assessment of the completeness of the part of the submission so stamped and sealed.

1.2 Electrical and Controls Installation Information

- .1 Key information will be taken from Shop Drawings to prepare electrical and instrumentation Drawings and/or layout Drawings, control schematics, and interconnection wiring diagrams.

1.3 Submission Requirements

- .1 Coordinate each submission with requirements of the Work and Contract Documents. Individual submissions will not be reviewed until all related information is available.
- .2 Accompany all submissions with a transmittal letter, in duplicate, containing:
 - .1 Date
 - .2 Project title and Bid Opportunity number
 - .3 Contractor's name and address
 - .4 Specification Section number for each submittal
 - .5 Submittal number and revision number in the following format:
 - .1 498 - Spec Section # - Submittal # - Revision # (e.g. 498-05500-001-1).
 - .2 The first submittal is numbered 1 with sequential numbering after that for revisions.
 - .6 Identification and quantity of each Shop Drawing product

SUBMITTALS

- .7 Equipment tag number
- .8 Other pertinent data
- .3 Submissions shall include:
 - .1 Date and revision dates
 - .2 Project title and number
 - .3 Name, email address, and address of:
 - .1 Contractor
 - .2 Manufacturer
 - .4 Contractor's stamp, signed by Contractor's authorized representative, certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
 - .5 As required in the specifications, the seal and signature of a Professional Engineer registered in the Province of Manitoba.
- .4 Details of appropriate portions of work as applicable:
 - .1 Fabrication
 - .2 Layout showing dimensions including identified field dimensions and clearances
 - .3 Setting or erection details
 - .4 Capacities
 - .5 Performance characteristics
 - .6 Standards
 - .7 Operating weight
 - .8 Wiring diagrams
 - .9 Single line and schematic diagrams
 - .10 Method of control of equipment and its communication with the City's SCADA system

1.4 Drawings

- .1 Original Drawings or modified standard Drawings provided by the Contractor to illustrate details of portions of Work which are specific to project requirements.

SUBMITTALS

- .2 Maximum sheet size: 850 x 1050 mm.
- .3 Submit twelve (12) prints and one (1) reproducible copy of Shop Drawings. The Contract Administrator will return the reproducible copy with comments transcribed.
- .4 Cross-reference Shop Drawing information to applicable portions of the Contract Documents.
- .5 Include reviewed Shop Drawings in all O&M Manuals.

1.5 Product Data

- .1 Product Data; Manufacturer's catalogue sheets, brochures, literature, performance charts, and diagrams used to illustrate standard manufactured products.
- .2 Submit twelve (12) copies of product data.
- .3 Sheet size: 215 x 280 mm.

1.6 Procedure and Routing

- .1 The Contractor shall provide to the Contract Administrator thirteen (13) printed copies of the Shop Drawings and corresponding submittal transmittal form(s) complete with the information specified in 1.3 Submission Requirements.
- .2 The Contractor shall simultaneously email the .pdf version of these same Shop Drawings and submittal transmittal forms to the Contract Administrator. The Contractor shall ensure the .pdf version of the Shop Drawings and corresponding submittal transmittal form(s) are identical to the printed copies being distributed for review. When the total size of the email is greater than 5 MB, the Contractor shall post the .pdf version of the Shop Drawings and submittal transmittal form(s) to an accessible place on the internet (provided by the Contract Administrator) and an e-mail notification is to be sent to all parties listed above when posting is complete.
- .3 The routing and the names of individuals responsible for receiving submittals will be identified by the Contract Administrator at the pre-construction meeting held pursuant to D4.2.
- .4 Upon review of the Shop Drawings, the Contract Administrator will e-mail the .pdf version of the annotated Shop Drawings and corresponding transmittal form(s) to the Contractor. When the total size of the email is greater than 5 MB, the Contract Administrator will post the .pdf version of the Shop Drawings and corresponding transmittal form(s) to the same accessible place on the internet and an e-mail notification will be sent to the Contractor. Two (2) printed copies of the reviewed Shop Drawings will be sent back to the Contractor.

SUBMITTALS

1.7 Shop Drawing Review

- .1 Shop Drawing review by the Contract Administrator is solely to ascertain conformance with the general design concept. Responsibility for the approval of detail design inherent in Shop Drawings rests with the Contractor and review by the Contract Administrator shall not imply such approval.
- .2 Review by the Contract Administrator shall not relieve the Contractor of his responsibility for errors or omissions in Shop Drawings or for proper completion of the Work in accordance with the Contract Documents.
- .3 Shop Drawings will be returned to the Contractor with one of the following notations:
 - .1 When stamped "REVIEWED", distribute additional copies as required for execution of the Work.
 - .2 When stamped "REVIEWED AS MODIFIED", ensure that all copies for use are modified and distributed, same as specified for "REVIEWED".
 - .3 When stamped "REVISE AND RE-SUBMIT", make the necessary revisions, as indicated, consistent with the Contract Documents and submit again for review.
 - .4 When stamped "NOT REVIEWED", submit other drawings, brochures, etc., for review consistent with the Contract Documents.
 - .5 Only Shop Drawings bearing "REVIEWED" or "REVIEWED AS MODIFIED" shall be used on the Work unless otherwise authorized by the Contract Administrator.
- .4 After submittals are stamped "REVIEWED" or "REVIEWED AS MODIFIED", no further revisions are permitted unless re-submitted to the Contract Administrator for further review.
- .5 Any adjustments made on Shop Drawings by the Contract Administrator are not intended to change the Contract Price. If it is deemed that such adjustments affect the Contract Price, clearly state as such in writing prior to proceeding with fabrication and installation of Work.
- .6 Make changes in Shop Drawings which the Contract Administrator may require consistent with Contract Documents. When re-submitting, notify the Contract Administrator in writing of any revisions other than those requested by the Contract Administrator.
- .7 Shop Drawings indicating design requirements not included in the Contract Documents require the seal of a Professional Engineer registered in the Province of Manitoba. If requested, submit engineering calculations for review, sealed by a Professional Engineer.

1.8 Operating and Maintenance Manuals

- .1 Refer to Section 01730 – Operations and Maintenance Manuals.

END OF SECTION