# GENERAL

## Definitions

### Action Submittal: Written and graphic information submitted by the Contractor, that requires the Consultant’s review, comment and approval.

### Informational Submittal: Information submitted by the Contractor, that does not require the Consultant’s review. Submittals not meeting the requirements of the Contract will be returned.

### Shop Drawings: Drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.

### Sample: A physical portion of a specified product.

## Related Sections

### Section 01025 – Measurement and Payment

### Section 01040 – Coordination

### Section 01310 – Construction Schedules

### Section 01640 – Manufacturers’ Services

### Section 01430 – Operation and Maintenance Data

### Section 01710 – Pre-Construction Structural Survey

### Section 01780 – Contract Closeout

### Section 01810 – Equipment Testing and Facility Commissioning

### Section 01820 – Demonstration and Training

### Division 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 16 and 16 Specifications

## Measurement and Payment

### The Work of this Section will not be measured separately for payment. All costs associated with the Work of this Section shall be included in the Contract Price.

### Application for Payment: No payment will be made for materials and equipment covered by the submittals. Payment for materials and equipment shall be in accordance with Section 01025 - Measurement and Payment.

## Submittals Procedure

### The Contractor shall direct submittals to the Consultant at the address specified in the Articles of Agreement, unless specified otherwise in the Contract Documents.

### The Contractor shall review all submittals promptly, and in orderly sequence, to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.

### The Contractor shall coordinate each submittal with requirements of work and Contract Documents. Individual submittals will not be reviewed until all related information is available.

### The Contractor shall allow 20 working days for Consultant review of each submittal unless otherwise noted within the Contract Documents.

### Adjustments made on shop drawings by the Consultant are not intended to change contract price. If adjustments affect value of Work, state such in writing to the Consultant immediately after receipt of approval of shop drawings. If value of work is to change a Change Order must be issued prior to proceeding with work.

### The Contractor shall submit three prints plus one electronic copy in PDF format of shop drawings for each requirement requested in specification sections and as the Consultant may reasonably request.

### The Contractor shall submit electronic copy in PDF format of product data sheets or brochures for requirements requested in specification sections and as requested by the Consultant where shop drawings will not be prepared due to standardized manufacture of product.

### If upon review by the Consultant, no errors or omissions are discovered or if only minor corrections are made, copies will be returned to the Contractor and fabrication and installation of work may proceed. If shop drawings are rejected, noted copy will be returned to the Contractor and resubmittal of corrected shop drawings, through same procedure indicated above, must be performed by the Contractor before fabrication and installation of work may proceed.

### After Consultant review, the Contractor shall distribute copies of the approved submittal as necessary. The Contractor shall not proceed with work until relevant submittals are reviewed by the Consultant

### The Contractor shall notify the Consultant, in writing at time of submittal, identifying deviations from requirements of Contract Documents stating reasons for deviations.

### The Contractor shall verify field measurements and affected adjacent work are coordinated.

### The Contractor’s responsibility for errors and omissions in submittal is not relieved by the Consultant’s review of submittals.

### The Contractor's responsibility for deviations in submittal from requirements of Contract Documents is not relieved by the Consultant’s review of submittal, unless the Consultant gives written acceptance of specific deviations.

### The Contractor shall make any changes in submittals which the Consultant may require consistent with Contract Documents and resubmit as directed by the Consultant. When resubmitting, the Contractor shall notify the Consultant in writing of revisions other than those requested by the Consultant.

### The Contractor shall keep one reviewed copy of each submittal on site.

## Submittal Requirements

### This section specifies general requirements and procedures for Contractor’s submissions of shop drawings, product data, samples and mock-ups to the Consultant for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.

### The Contractor shall review submittals prior to submittal to the Consultant. This review represents that the necessary requirements of the Work have been determined and verified, or will be, and that each submittal has been checked and coordinated with the requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned to the Contractor without being examined and shall be considered rejected.

### Submittals shall indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.

### Information not applicable to the Work must be deleted prior to submittal.

### Supplement standard information to provide details applicable to the Work.

### Cross-reference product data information to applicable portions of Contract Documents.

### Samples include examples of materials, equipment, quality, finishes, workmanship. Label samples with origin and intended use.

### Notify the Consultant in writing, at the time of submittal of any deviations in the samples from the requirements of the Contract Documents.

### Where colour, pattern or texture is criterion, submit full range of samples. Make changes in samples, which the Consultant may require, consistent with Contract Documents. Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified

### Present shop drawings, product data, samples and mock-ups in SI Metric units.

### Where items or information is not produced in SI Metric units converted values are acceptable.

## Professional Engineer Design

### Where Specification Sections require design by a Professional Engineer, such engineer is required to be licensed in the related discipline in the Province of Ontario.

## Summary

### As a minimum, the Contractor shall submit the following submittals to the Consultant, or his designate, before, during and after construction:

#### Construction schedule.

#### Proposed location and details of temporary buildings.

#### Shop drawings for permanent and temporary works.

#### Samples.

#### Tests and reports.

#### Maintenance data and operating instructions.

#### Maintenance materials.

#### Lump Sum breakdown of Tender price.

#### Interference Drawings.

#### As-Built Drawings.

#### Details of proposed tower crane (if applicable).

#### NSF 61 and NSF 372 certifications of materials and equipment.

#### Permits/certificates from various regulatory agencies (such as TSSA, etc.).

#### Commissioning plans and schedules

#### On-the-Job Training form (OJT) as required and defined by Section 01820 – Demonstration and Training.

### Facsimile transmissions will not be acceptable.

## Procedures

### Direct submittals to the Consultants at the following addresses, unless specified otherwise in the Contract Documents.

#### Andrew Moreton

#### 168 Commerce Valley Dr. W #200

#### Thornhill, ON, Canada

#### L3T 7V8

#### Moretona@ae.ca

#### Johnny Pang

#### 9030 Leslie Street, Unit 300

#### Richmond Hill, ON, Canada

#### L4B 1G2

#### Johnny.pang@etoengineering.ca

### The Contractor shall:

#### Review each submittal and check it for compliance with the Contract Documents.

#### Stamp each submittal with a uniform approval stamp before submitting to the Consultant.

#### The stamp shall include the Contract name, submittal number, Specification number, Contractor’s reviewer name, date of Contractor’s approval, and a statement certifying that the submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

#### The Consultant will not review submittals that do not bear the Contractor’s approval stamp and will return them without action.

#### The Consultant will not review submittals received directly from a Subcontractor or supplier and will return them without action.

#### Complete, sign, and transmit with each submittal package, one Transmittal of Contractor’s Submittal form attached at the end of this Section.

##### Identify each submittal with the following:

###### Numbering and Tracking System:

Sequentially number each submittal.

Any resubmittals of a submittal shall have the original number with a sequential alphabetic suffix.

Specification Section and subsection to which the submittal applies

Contract title and the Consultant’s project number.

Date of transmittal.

Names and addresses of the Contractor, Subcontractor or supplier, and manufacturer as appropriate

##### Include a signed Transmittal of Contractor’s Submittal included as a supplement to this Section in order to identify and describe each deviation or variation from the Contract Documents with each submittal. If no deviation is applicable then the form must indicate ‘no deviation from Contract’.

##### Accompany submittals with transmittal letter, containing:

###### Identification and quantity of each shop drawing, product data and sample.

###### Other pertinent data.

### Submittals shall include:

#### Date and revision dates.

#### Project title and number.

#### Name and address of:

##### Subcontractor.

##### Supplier.

##### Manufacturer.

#### Contractor's stamp, signed by Contractor’s authorized representative certifying approval of submittals, verification of field measurements and compliance with Contract Documents.

#### Details of appropriate portions of Work as applicable:

##### Fabrication.

##### Layout, showing dimensions, including identified field dimensions, and clearances.

##### Setting or erection details.

##### Capacities.

##### Performance characteristics.

##### Standards.

##### Operating weight.

##### Wiring diagrams.

##### Single line and schematic diagrams.

##### Relationship to adjacent work.

### Format:

#### Do not base submittals on reproductions of the Contract Documents.

#### Package the submittal information by individual Specification Section. Do not combine different Specification Sections together in the submittal package, unless otherwise directed in the Specification.

#### Present in a clear and thorough manner and in sufficient detail to show the kind, size, arrangement, and function of components, materials, and devices, and compliance with the Contract Documents.

#### Include an index with labelled tab dividers in an orderly manner.

### Timeliness: Schedule and submit in accordance with the schedule of submittals, and the requirements of the individual Specification Sections.

### Processing Time:

#### The time for review shall commence upon the Consultant’s receipt of the submittal.

#### The Consultant will act upon the Contractor’s submittal and transmit a response to the Contractor no later than 20 Working Days after receipt, unless otherwise specified in the Specification Sections.

#### Resubmittals will be subject to the same review time.

#### No adjustment of Contract Time or Contract Price will be allowed due to delays in the progress of the Work caused by the rejection of submittals and subsequent resubmittals.

#### Allow for additional review time required for complex equipment and systems.

### Re-submittals: Clearly identify each correction or change made. Two submittals of each submittal (original submittal and one resubmittal) will be processed at no charge to the Contractor. The cost of any processing/review time incurred by the Region beyond the two submittals will be charged back to the Contractor and deducted from the next progress draw.

### Incomplete Submittals:

#### The Consultant will return the entire submittal for the Contractor’s revision if the preliminary review deems it incomplete.

#### The submittal will be deemed incomplete when any of the following items are missing:

##### The Contractor’s review stamp, completed and signed.

##### Transmittal of the Contractor’s Submittal Form completed and signed.

##### Deviation form completed and signed.

##### Deviations identified during the review which were not identified on the deviation form.

### Submittals not required by the Contract Documents:

#### Will not be reviewed and will be returned stamped “Not Subject to Review.”

#### The Consultant will keep one copy and return all remaining copies to the Contractor.

## Action Submittals

### The Contractor shall prepare and submit a list of Action Submittals required by the individual Specification Sections.

### Shop Drawings:

#### Copies: One (1) Electronic.

#### The Contractor shall identify and indicate:

##### The applicable Contract Drawing and Detail number, Products, units and assemblies, and system or equipment identification or tag numbers.

##### The Equipment and Component Title: Identical to the title shown on the Contract Drawings.

##### Critical field dimensions and relationships to other critical features of the Work. Note any dimensions established by field measurement.

##### Project specific information drawn accurately to scale.

#### Manufacturer’s standard schematic drawings and diagrams:

##### Modify to delete any information that is not applicable to the Work.

##### Supplement standard information to provide information specifically applicable to the Work.

#### Product Data: Provide as specified in the individual Specification Sections.

#### Foreign Manufacturers: When proposed, include the following additional information:

##### Names and addresses of at least two (2) companies that maintain technical service representatives close to the location of the Site.

##### Complete list of spare parts and accessories for each piece of equipment and the address of the closest supplier.

#### Units: Submit all Shop Drawings in SI metric units.

### Samples:

#### Submit samples of materials to be used in the Work for review. Adhere to the requirements of the Specifications Sections. If no quantity of samples is specified, two samples will be required for architectural materials and one sample of metal and mechanical items.

#### Do not use material in the work which is in any way inferior to the samples submitted and reviewed. Match accepted samples.

#### Preparation: Mount, display, or package samples in the manner specified by the manufacturer to facilitate a review of their quality. Attach a label on the unexposed side that includes the following:

##### Manufacturer’s name

##### Model number

##### Material

##### Sample source

##### Manufacturer’s Colour Chart: Units or sections of units showing the full range of colours, textures, and patterns available.

##### Full size Samples:

##### Size as indicated in the individual Specification Sections

##### Prepared from the same materials to be used for the Work

##### Cured and finished in a manner specified by the manufacturer

##### Physically identical to the Product proposed for use.

### Review of samples notwithstanding, materials that are unsound or imperfect when delivered to site will be rejected.

### Identify samples by project name and number, date, name of Contractor and all other pertinent information.

### Retain reviewed samples on Site and make them available to the Consultant when required.

### Action Submittal: The Consultant will review, mark, and stamp as appropriate, and distribute marked up copies as noted:

#### No Exceptions Taken:

##### The Contractor may incorporate the Product(s) or implement the Work covered by the submittal.

##### Distribution:

###### One electronic copy furnished to the Region.

###### One electronic copy furnished to the Region’s project representative.

###### One electronic copy retained in the Consultant’s file.

###### One electronic copy returned to the Contractor with the appropriate annotations.

#### Exceptions Noted:

##### The Contractor may incorporate the Product(s) or implement the Work covered by the submittal, in accordance with the Consultant’s notations.

##### Distribution:

###### One electronic copy furnished to the Region.

###### One electronic copy furnished to the Region’s project representative.

###### One electronic copy retained in the Consultant’s file.

###### One electronic copy returned to the Contractor with the appropriate annotations.

#### Exceptions Noted, Resubmit:

##### The Contractor may not incorporate the Product(s) or implement the Work covered by the submittal.

##### Distribution:

###### One electronic copy furnished to the Region’s project representative.

###### One electronic copy retained in the Consultant’s file.

###### One electronic copy returned to the Contractor with the appropriate annotations.

### For hardcopy submittals, the Consultant will review, mark, and stamp as appropriate, and distribute marked up copies as noted.

### Informational Submittals.

#### General:

##### Copies:

###### Submit one electronic copy, unless otherwise indicated in the individual Specification Sections.

##### Refer to the individual Specification Sections for specific submittal requirements.

##### The Consultant will review each submittal for general conformance with the Contract Documents.

##### The Consultant’s review does not relieve the Contractor from its obligations to comply with the requirements of the Contract, nor shall it relieve the Contractor of its responsibility for any consequences which may arise out of errors in the shop drawings or in the Contractor’s design.

##### If the submittal meets the conditions of the Contract, the Consultant will retain one copy for record purposes, and forward the other copies to the appropriate parties.

##### If the Consultant determines that the submittal does not meet the requirements of the Contract and is therefore considered unacceptable, the Consultant will retain one copy and return the remaining copies with review comments to the Contractor, and will require that the submittal be corrected and resubmitted.

##### The Consultant will distribute electronic copies to the Region and Contractor.

##### Distribution:

###### One electronic copy furnished to the Region’s project representative.

###### One electronic copy retained in the Consultant’s file.

###### One electronic copy furnished to the Region.

### Certificates:

#### General:

##### Provide a notarized statement that includes the signature of the entity responsible for preparing the certification.

##### Signed by an officer or other individual authorized to sign documents on behalf of that entity.

#### Welding: shall be in accordance with the individual Specification Sections.

#### Installer: Prepare written statements on the manufacturer’s letterhead certifying that the installer complies with the requirements as specified in the individual Specification Sections.

#### Material Test: Prepared by a qualified testing agency, on the testing agency’s standard form, indicating and interpreting the test results of the material for compliance with the requirements of the Contract.

#### Certificates of Successful Testing or Inspection: Submit when testing or inspection is required by any applicable laws and regulations or governing agencies or as specified in the individual Specification Sections.

#### Manufacturer’s Certificate of Compliance: In accordance with Section 01640 - Manufacturers’ Services.

#### Manufacturer’s Certificate of Proper Installation: In accordance with Section 01640 - Manufacturers’ Services.

#### Construction Photographs In accordance with Section 01040 – Coordination, Section 01710 – Pre-Construction Structural Survey, and as may otherwise be required in the Contract Documents.

#### Contract Closeout Submittals: In accordance with Section 01780 - Contract Closeout.

### Contractor Design Data:

#### Written and graphic information

#### List of assumptions

#### List of performance and design criteria

#### Summary of loads or load diagram, if applicable

#### Calculations

#### List of applicable codes and regulations

#### Name and version of software

#### Information requested in individual the Specification Sections.

#### Seal and signature of a Professional Engineer.

### Manufacturer’s Instructions: Written or published information that documents the manufacturer’s recommendations, guidelines, and procedures in accordance with the individual Specification Sections.

### Operation and Maintenance Data: As required in Section 01430 - Operation and Maintenance Data.

### Schedules:

#### The Schedule of Shop Drawings and Sample Submittals shall be included in the Progress Schedule as specified in Section 01310 - Construction Schedules.

##### Show the following for each, at a minimum:

###### Specification Section number.

###### Identification by numbering and tracking system as specified under subsection 1.8.2.6 herein.

###### Estimated date of submittal to the Consultant, including reviewing and processing time.

##### The Contractor shall update the Baselined Detailed Schedule monthly (or more frequently) in order to reflect actual progress and occurrences to date, and shall reflect delays in submittals/resubmittals.

#### Detailed Schedule of Prices: In accordance with Section 01025 - Measurement and Payment.

#### Schedule of Estimated Progress Payments: In accordance with Section 01025 - Measurement and Payment.

#### Progress Schedules: In accordance with Section 01310 - Construction Schedules.

### Special Guarantee/Warranty: Supplier’s written guarantee as required in the individual Specification Sections.

### Statement of Qualification: Evidence of qualification, certification, or registration as required in the Contract Documents to verify the qualifications of the professional land surveyor, engineer, materials testing laboratory, specialty Subcontractor, trade, specialist, installer, and other professionals.

### Submittals required by applicable Laws, Regulations, and Governing Agencies:

#### The Contractor shall promptly submit all notifications, reports, certifications, payrolls, and other documents as may be required, directly to the applicable federal, provincial, or local governing agency or their representative.

#### Transmit to the Consultant for the Region’s records one copy of all correspondence and transmittals (to include enclosures and attachments) between the Contractor and the governing agency.

### Test and Inspection Reports:

#### General: Shall contain the signature of the person responsible for the test or report. Insofar as practical, test materials and equipment on site. Where shop test is necessary, give the Consultant two weeks’ notice in writing of proposed shop test date.

#### Factory: Include the following, at a minimum:

##### Identification of the Product, Specification Section, and type of inspection or test with reference to the applicable standard or code.

##### Date of test, contract title and number, and name and signature of an authorized representative of the manufacturer.

##### Test results.

##### If a test or inspection deems that the material or equipment is not in compliance with the Contract Documents, identify the corrective action necessary to bring the material or equipment into compliance.

##### Provide an interpretation of the test results, when requested by the Consultant. Complete an equipment report prior to site testing each item of rotating mechanical equipment. During testing complete the remainder of the equipment report. Submit the reports for inclusion in the Installation, Operation and Maintenance manual.

##### Before operating equipment, engage the services of a qualified manufacturer’s service representative to inspect, operate, test and adjust the equipment after installation.

##### Submit the manufacturer’s representative’s signed report describing in detail the inspection, tests and adjustments made, quantitative results and suggestions for precautions to be taken for correct maintenance. Verify that the equipment and its installation conform to the requirements of the Contract for the service intended and is ready for permanent operation. Bind copies of report into the installation, operation and maintenance manuals.

##### Inspection includes:

###### Soundness (without cracked or otherwise damaged parts).

###### Completeness of installation as specified and as recommended by the manufacturer.

###### Correctness of setting, alignment and relative arrangement of various parts of system.

##### Operate, test and adjust equipment to prove it is correctly installed to operate under the intended conditions.

##### Equipment will only be accepted after receipt of the manufacturer’s representative’s report.

##### Submit notice in writing at least 48 hours before the manufacturer’s representative is scheduled to perform these services.

##### Modify or replace equipment or materials failing required tests.

##### Perform additional testing required due to changes of materials requested by the Contractor or due to failure of materials or construction in order to meet the specification requirements of the Contract at no additional cost to the Region.

##### Other items as identified in the individual Specification Sections.

#### Field: At a minimum, include the following:

##### Contract title and number.

##### Date and time.

##### Record of temperature and weather conditions.

##### Identification of the Product and Specification Section.

##### Type and location of test, sample, or inspection, including the reference to the applicable standard or code.

##### Date issued, testing laboratory name, address, and telephone number, and name and signature of the laboratory inspector.

##### If a test or inspection deems that the material or equipment is not in compliance with the Contract Documents, identify the corrective action necessary to bring the material or equipment into compliance.

##### Provide an interpretation of the test results, when requested by the Consultant.

##### Before operating equipment, engage the services of a qualified manufacturer’s service representative to inspect, operate, test, and adjust the equipment after installation

##### Submit the manufacturer’s representative’s signed report describing in detail the inspection, tests and adjustments made, quantitative results and suggestions for precautions to be taken for correct maintenance

##### Verify that the equipment and its installation conform to the requirements of the Contract for the service intended and is ready for permanent operation

##### Bind copies of report into the installation, operation and maintenance manuals

##### Inspection includes:

###### Soundness (without cracked or otherwise damaged parts)

###### Completeness of installation as specified and as recommended by manufacturer

###### Correctness of setting, alignment and relative arrangement of various parts of system

##### Operate, test and adjust equipment to prove it is correctly installed to operate under the intended conditions

##### Equipment will only be accepted after receipt of the manufacturer’s representative’s report

##### Submit notice in writing at least 48 hours before manufacturer’s representative is scheduled to perform these services

##### Modify or replace equipment or materials failing required tests

##### Perform additional testing required due to changes of materials requested by Contractor or due to failure of materials or construction to meet Specifications at no additional cost to the Region

##### Other items as identified in the individual Specification Sections.

### Testing and Start-up Data: In accordance with Section 01810 - Equipment Testing and Facility Commissioning.

### Training Data: In accordance with Section 01640 - Manufacturers’ Services and Section 01820 – Demonstration and Training.

### Interference Drawings:

#### Before the installation of any structural, mechanical, or electrical systems, prepare an integrated set of interference drawings in cooperation with all Subcontractors and/or Other Contractors.

#### Show the locations and relationships of all Subcontractors and/or Other Contractors in mechanical and electrical equipment rooms, pipe spaces, tunnels, galleries, and basements, and all electrical conduits and pipes to be cast into structural slabs, walls, and columns.

#### Submit updated interference drawings as the Work progresses.

#### Make all necessary relocations due to interference with Other Contractors, as a result of incomplete interference drawings, at no cost to the Region.

### Informational Submittal Dispositions: The Consultant will review, mark, and stamp as appropriate, and distribute marked up copies as noted:

#### Received for Information:

##### The Contractor may incorporate the Product(s) or implement the Work covered by the submittal.

##### Distribution:

###### One electronic copy furnished to the Region.

###### One electronic copy furnished to the Region’s project representative.

###### One electronic copy retained in the Consultant’s file.

###### One electronic copy returned to the Contractor with the appropriate annotations.

#### Exceptions Noted, Resubmit:

##### The Contractor may not incorporate Product(s) or implement the Work covered by submittal.

##### Distribution:

1. One electronic copy furnished to the Region’s project representative.

2. One electronic copy retained in the Consultant’s file.

3. One electronic copy returned to the Contractor with the appropriate annotations.

### Progress Photographs

#### Progress photograph shall be electronically formatted and labelled as to location and view.

### Shop Drawings

#### The review of shop drawings by the Consultant is for the sole purpose of ascertaining conformance with the general concept. The Consultant’s review does not constitute the Consultant’s approval of the detail design inherent in the shop drawings nor does it relieve the Contractor of its responsibility for errors or omissions in the shop drawings or of responsibility for meeting all requirements of the Contract Documents.

#### Without restricting the generality of the foregoing, the Contractor is responsible for dimensions to be confirmed and correlated at the Site, for information that pertains to fabrication processes or to techniques of construction and installation and for coordination of the work of all Subcontractors.

#### Drawing submittals shall include, but not necessarily be limited to:

##### Catalogue Drawings include reprints of catalogue drawings of proprietary articles of standard fabrication and manufacture for the work.

##### Shop Drawings include dimensioned line drawings and related specifications, information and literature for custom fabricated articles and equipment.

##### Submit one electronic copy of shop drawings for review.

##### Submit one electronic copy of catalogue drawings for information.

##### Submit all drawings in SI metric units.

##### One stamped electronic copy of shop drawings will be returned to the Contractor after review.

##### None of the catalogue drawings will be returned to the Contractor if the equipment depicted conforms to the Specifications.

##### Submit shop drawings well in advance of the time when the equipment is required for installation or material is required for use.

##### Coordinate submittal of shop drawings prepared by various trades so that all information is available to allow comprehensive review and sufficient review time is available where the work of one trade interfaces with, or affects the work of another. Recognize extensive engineering review time required for certain complex equipment or systems.

##### Clearly identify each submittal as to the Project description, Contract number, Specification Section, paragraph number, Equipment Schedule number, if applicable and component.

##### The Consultant will stamp each submittal as “REVIEWED, REVIEWED AS MODIFIED, REVISE AND RESUBMIT or NOT REVIEWED”. Do not change shop drawings after they have been reviewed and stamped.

##### Identify changes on re-submittals and include revision dates.

##### Payment will not be authorized for equipment and materials delivered to the site of the works before corresponding shop drawings have been reviewed and accepted.

##### If the Consultant requests details or items on shop drawings which the Contractor believes require extra payment or extension of scheduled contract time, make any claims within one week and receive acceptance of extra work, before proceeding with fabrication.

##### Final review of specific equipment and materials shop drawings is subject to witnessing or review by the Consultant, of testing, start-up, commissioning and operation of the equipment for the periods specified, or performance of the material(s) and after all guarantees have been fulfilled as specified.

##### The Consultant will review the shop drawings or Contractor’s design only for conformance with the Contract’s design concept and general arrangement. The Consultant’s review does not relieve the Contractor from compliance with requirements of the Contract Documents nor relieve the Contractor of its responsibility for and the consequences arising out of errors in the shop drawings or the Contractor’s design.

##### Where work is to be designed by the Contractor, comply with applicable codes and submit shop drawings signed and sealed by a licensed Professional Engineer registered in the Province of Ontario.

##### Fabrication, erection, installation or commissioning may require modifications to equipment or systems to conform with the design intent. Provide record “as built” shop drawings together with comprehensive operations and maintenance manuals.

##### No claims will be allowed for monetary compensation or extension of the Contract Time, arising from delays related to shop drawings which are incomplete, lack sufficient information and which for those inadequacies, or for any other reason, are returned to the Contractor for revision and re-submittal, thus requiring repeated review by the Consultant.

##### Keep one copy of each stamped, reviewed shop drawing at the site of the work for reference during construction work progress.

##### Within four weeks of receipt of the written notice to commence the Work, submit to the Consultant, three copies of an itemized list indicating all shop drawings which the Contractor proposes to submit.

##### Where there is insufficient space on the face of a shop drawing, or the drawing is too small to allow the Contractor to provide the information specified in this Section herein, the information shall be written or stamped, etc., by the Contractor on the back of shop drawing submittals.

##### Shop drawings will not be reviewed and will be returned and considered rejected, unless they have been previously checked and initialed by the Contractor.

### Shop Drawings for Temporary Works

#### Submit for review shop drawings of temporary works which:

##### Control the dimensions and locations of any part of the structures to be constructed under the contract.

##### Impose loads on parts of the works which are still under construction or on existing structures.

#### Submit one electronic copy of shop drawings for review. Payment will not be made for any items of Work started or completed without the required drawing review. Submit shop drawings well in advance of the time when they are required for construction. Coordinate shop drawings prepared by different trades so that information is available to prevent conflict or errors where the work of one trade affects the work of another.

#### One electronic copy of submitted shop drawings will be returned to the Contractor after review.

#### Shop drawings will be reviewed for conformity with the required arrangement and dimensions of the permanent structures and for general conformity with the specifications.

#### If resubmittal is requested, discuss the comments made and resolve all issues raised by them, then resubmit the shop drawings amended accordingly.

#### Do not begin construction of temporary works before review of the shop drawings is completed.

#### Review of the Contractor’s drawings does not relieve the Contractor of its responsibility for the results arising from errors or omissions of design or from the use or abuse of the temporary works.

#### Keep one copy of each stamped, reviewed drawing at the site of the work for reference for the duration of the Work.

#### Make no changes to shop drawings after they have been reviewed.

#### Submit shop drawings in SI metric units.

### Temporary Buildings

#### Submit to the Consultant for review, one electronic copy of drawings showing details of construction and proposed location of temporary buildings including site trailers, prior to mobilization on site. One electronic copy will be returned to the Contractor.

## Supplements

### The supplement listed below, following “End of Section”, forms part of this Specification.

#### Form: Transmittal of Contractor’s Submittal

# PRODUCTS (NOT USED)

# EXECUTION (NOT USED)

**END OF SECTION**

|  |  |  |  |
| --- | --- | --- | --- |
| **TRANSMITTAL OF CONTRACTOR’S SUBMITTAL**  (ATTACH TO EACH SUBMITTAL)  Date: | | | |
| **TO**:          **FROM**:  Contractor | | Submittal No.:  New Submittal  Resubmittal  Project:  Project No.:  Specification Section No.:  **(Cover only one section with each transmittal)**  Schedule Date of Submittal: | |
| **SUBMITTAL TYPE:** | Shop Drawing | Sample | Informational |

**The following items are hereby submitted:**

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| --- | --- | --- | --- | --- | --- |
| Number of Copies | Description of Item Submitted (Type, Size, Model Number, Etc.) | Spec. and Para. No. | Drawing or Brochure Number | Contains Variation to Contract | |
|  |  |  |  | No | Yes |
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THE CONTRACTOR hereby certifies that (i) THE CONTRACTOR has complied with the requirements of the Contract Documents in the preparation, review, and submission of the designated Submittal and (ii) the Submittal is complete and in accordance with the Contract Documents and the requirements of laws and regulations and governing agencies.

By:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

CONTRACTOR (Authorized Signature)